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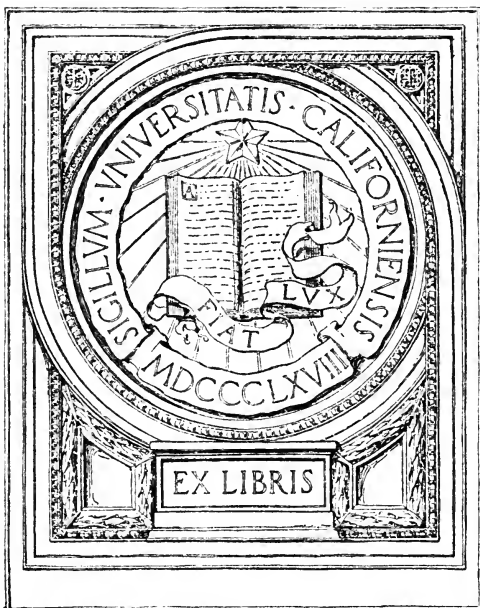
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INFANT WELFARE

IN

GERMANY

DURING THE WAR.

REPORT

Prepared in the Intelligence Department of the
Local Government Board.

1918.

LIBV. OF
CALIFORNIA

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Infant Welfare in Germany during the War.

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THE PRESIDENT.

1. The present report deals with conditions in Germany as to infant welfare since the outbreak of war. Information is given as to the birth-rate and the death-rate, the special maternity grants which have been provided, and the other measures for saving the lives and improving the health of infants, including special measures as regards milk and other foods. A summary of the principal facts and some conclusions drawn from the evidence are given in the last chapter ; the conclusions are necessarily tentative, having regard to the restricted sources of information.

The most striking fact is the heavy fall in the number of births. The first three years alone of the war reduced by over 2,000,000 the number of babies who would have been born had peace prevailed. Some 40 per cent. fewer babies were born in 1916 than in 1913.

2. The infantile death-rate has been kept well down. In the months immediately following the outbreak of war there was a sudden rise, which has been attributed mainly to the economic disturbance, but probably was due at least as much to the general mental unrest combined with the hot and dry summer.

For the years 1915 and 1916 the infantile death-rate was markedly reduced, at least in the towns, partly by the special measures which were taken, largely also no doubt because of the cool summers. It is noteworthy that the death-rate was low, despite the undoubtedly difficult conditions of the food supply.

High though the death-rate was in the months immediately after the outbreak of war, it was not so high as in the very hot months of 1911, when the heat and dryness proved more fatal even than the cataclysm of war.

3. The most noteworthy measure taken for infant welfare is the special grants to women who give birth to children. One of these grants is given only to women who breast-feed their babies.

From one point of view the grants may be regarded as eking out the low rate of separation allowances to the dependants of soldiers. From another point of view they may be regarded as payments for specific services rendered to the State.

The grants are in the main an extension of benefits paid, or which were permissible (but which were in fact rarely paid), under the Sickness Insurance Law, and are administered largely through the Insurance Societies. This method, however, has not given general satisfaction, and there is a strong consensus of opinion among those best qualified to judge that grants of this kind should be administered through infant welfare centres.

4. At the beginning of the war, under the pressure of military needs, infant welfare work suffered. The high death-rate and the claims of the nation's future soon led, however, to a large extension of the work. Voluntary societies have played an active part in this extension ; but the general tendency is for the movement to become more and more municipal.

The progress has largely taken the form of an increase in the number of infant welfare centres, with functions similar to those in this country.

It had been the practice at many of the centres, before the war, to pay premiums to mothers who breast-fed their babies. It is stated that, when these premiums ceased to be paid because of the grants made under the imperial scheme, in many cases mothers no longer availed themselves of the welfare centres, and infants suffered in consequence. Many of the centres now give premiums for breast-feeding only after the initial three months to which the imperial grants are limited. Where special grants of this kind are not made, a large proportion of mothers cease to breast-feed their babies when the imperial grants are no longer paid.

5. The proper provision of food for expectant and nursing mothers, and for infants and children, became difficult at an early stage of the war ; and the local authorities have been active in measures for overcoming the trouble. Many municipalities have themselves undertaken the supply of food, in some cases through the infant welfare centres.

The diversity of conditions in different parts of Germany must always be borne in mind. While imperial regulations may be made, the administration of them rests generally with the local authorities, and what is really done depends on their activities. The municipalities have also wide scope for initiative ; and imperial measures generally follow on action already taken by enterprising local authorities.

The improvements in infant welfare in Germany during the war have been effected principally in the towns, although efforts are being increasingly made to extend the work to rural districts. In a large number of these districts, however, conditions are lamentably backward and the death-rate very high. In contrast to this country, the infantile death-rate in Germany in the country districts is higher than in the towns.

6. The Germans excel in publicity, and much is written by them, often admirably, about their schemes and plans. It is always a useful corrective to look at the actual results. When this is done, it is found that this country is far ahead of Germany ; that its infantile death-rate is some 50 per cent. lower ; and that, while undoubtedly we may, and if wise, will, learn from the measures adopted there, this should not blind us to the more favourable results already obtained from the general conditions prevailing in this country.

I. G. GIBBON.

INTELLIGENCE DEPT.,
LOCAL GOVERNMENT BOARD,
March, 1918.

INFANT WELFARE IN GERMANY DURING THE WAR.

I.—INTRODUCTION.

(1) The twofold loss of human life which all the warring countries are sustaining through the destruction of men on the battlefield and the rapid decline in the number of births at home has brought into prominence the question how far and in what way this loss may be made good. The most obvious measure is to preserve the lives and to ensure the well-being of the children. This report shows what action has been taken in Germany during the war to these ends.

(2) Up to the end of last century very little had been done in Germany to combat the high infant mortality which then prevailed. Notwithstanding the efforts made to care for orphan, deserted and illegitimate children, the complaint of social reformers that Germany was behind other countries in caring for infant life generally was well founded.

This indifference to the loss of infant life was supported by the thought, seldom expressed but nevertheless a potent influence in the minds of the people generally, that the growth of the population had been so rapid during the second half of the nineteenth century that Germany could afford to lose many thousands of young lives every year without menace to the future.

Towards the beginning of the present century the danger to the nation of the great loss of infant life, together with the declining birth-rate, began to arouse attention.

(3) Comparison of the infant death-rates at that time in European countries placed Germany in a very unfavourable position. Out of every 1,000 children born alive in that country 200 died before attaining one year of age, a rate nearly 50 per cent. higher than that in England and Wales, and more than twice as high as that for Norway and Sweden (Table A*).

The following chapters deal with the birth-rate, infant mortality, and measures taken to promote infant welfare chiefly during the war; for comparison, information of the principal facts before the war is also given.

The chief sources of information are journals published in Germany devoted to infant welfare, local government, medicine and social reform.

* The tables referred to in the text will be found in Appendix I at the end.

II.—THE BIRTH-RATE.

(a) BEFORE THE WAR.

(4) It will be seen from the following figures that the birth-rate in Germany remained high up to the end of last century, the rate for the decade 1891–1900, over 36 per thousand, being the same as that for the years 1841–1850 :—

1841–1850	...	...	36.1	per 1,000	estimated inhabitants.
1851–1860	...	...	35.3	"	" "
1861–1870	...	...	37.2	"	" "
1871–1880	...	...	39.1	"	" "
1881–1890	...	...	36.8	"	" "
1891–1900	...	...	36.1	"	" "
1901–1910	...	...	31.9	"	" "

In the ten years, 1901–1910, there was a rapid decline, the mean rate for those years being under 32 per thousand. The rate for the last year of this period, 1910, was below 30 per thousand, and the steady fall has continued since that year, the rate for 1912 being 28.3.

This decline in the birth-rate during recent years is not, of course, peculiar to Germany.

(b) DURING THE WAR.

(5) The following figures of the number of live births in the German Empire during the war years were quoted some time ago in an article in *Die Hilfe* by Karl Doormann, a member of the Reichstag. The general accuracy of the figures is confirmed from other sources. They show a slight reduction in 1914 as compared with 1913, but a very large one in 1915 and again in 1916. Comparing 1913 and 1916 there is a difference of 40 per cent.

				Decrease as compared with		
				1913.	1914.	1915.
				Per cent.	Per cent.	Per cent.
1913	...	...	1,839,000	—	—	—
1914	...	...	1,820,000	1.03	—	—
1915	...	...	1,416,000	23.0	22.2	—
1916	...	...	1,103,000	40.0	39.4	22.1

Doormann estimated that a war of three years' duration would mean a loss to Germany of over two and a half million new lives.

The figures given above may be compared with those worked out from the official returns for places with 15,000 inhabitants and over, which are published monthly by the Imperial Health Office (Table B). It will be observed that the percentage reduction in the towns is slightly higher than that for the empire as a whole.

Corresponding figures for England and Wales are given for comparison.

ENGLAND AND WALES.

				Decrease as compared with		
				1913.	1914.	1915.
				Per cent.	Per cent.	Per cent.
1913	...	...	881,890	—	—	—
1914	...	...	879,096	0.31	—	—
1915	...	...	814,614	7.6	7.3	—
1916	...	...	785,520	10.9	10.6	3.6

The crucial importance for Germany, especially with her ambitions, of so great a reduction in the birth-rate is manifest. It is possible there may be an increase in the birth-rate after the war, as in the decade immediately following the Franco-Prussian War of 1870–71; but the increase will have to be great to compensate for the loss occasioned by the war.

III.—INFANT MORTALITY.

(a) BEFORE THE WAR.

(6) The rate of infant mortality (that is, the number of deaths of infants under one year of age per thousand live births) for the German Empire declined slowly but steadily from the year 1906 to the year 1911, when the unusually hot summer sent it up again. The year 1912 showed an improvement on all previous records, but in 1913 there was once more a slight rise.

The rates per thousand for the years 1901–1913 in the whole empire, and in Prussia and Bavaria, are given below. It will be noted that the figures for Prussia are lower than those for the whole empire, while those for Bavaria are much higher. The corresponding rates for England and Wales are given for comparison; they are much lower than those for Germany.

INFANT MORTALITY RATES, 1901 TO 1913.

	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
German Empire	207	183	204	196	205	185	176	178	170	162	192	147	151
Prussia... ..	200	172	194	185	198	177	168	172	164	157	188	146	150
Bavaria	—	—	—	239	241	227	220	217	217	202	223	177	182
England & Wales	151	133	132	145	128	132	118	120	109	105	130	95	108

The improvement in the infant death-rate for the whole empire, shown by the above figures, appears to have been largely due to a reduction in the infant mortality of the large towns.

The infant mortality rates for a number of large towns are given in Table C. They show that, with the exception of the hot year 1911, the rates become gradually lower in the ten years preceding the war.

(7) *Prussia*.—Figures for Prussia, published by the Prussian Statistical Office, show that in the last quarter of the last century and for the first few years of the present century the rate of infant mortality was higher in the urban districts taken as a whole than in the rural districts. There was a gradual reduction in the rate in both urban and rural areas, but it was more rapid in the towns than in the country. In the year 1906 the rates for urban and rural districts were about the same, but from 1907 down to 1914 the rate was lower in the urban than in the rural districts (Table D).

(8) *Bavaria*.—The infant mortality rate has long been high in Bavaria, and the rate in the country has been, and still is, higher than that in the towns (Table E).

In recent years, the Bavarian Statistical Office has prepared returns as to infant mortality in districts grouped according to the number of inhabitants. The figures for the years 1911, 1912 and 1913 are shown in Table F. The higher figures in the least populated areas are significant; whereas in the large towns the rate in 1913 was under 160, in the rural districts it exceeded 190.

(b) DURING THE WAR.

(9) *Statistics for the year 1914*.—The infant mortality rates for the year 1914 in Prussia, Saxony and Bavaria, as given in official returns, were 164, 173 and 193 per thousand respectively. Official figures for the whole empire are not available, but these three states together comprise nearly 80 per cent. of the total population of the German Empire.

Table G gives the infant mortality rates for the separate quarters of the year 1914 in all three of the states named, and corresponding figures for the years 1911 and 1913. The outstanding feature of the returns for 1914 is an abnormal rise in the third quarter.

The infant mortality rates of nearly all large towns show the same tendency (an exceptional rise) in the two months immediately following the outbreak.

of war. Some examples are given in Table H, the corresponding figures for 1911 and 1913 being included for comparison. In many towns the rate was over 200 and, in a few, over 300 per thousand in the two months in question.

The rural districts, in Prussia at least, shared in the sudden increase in the rate of infant mortality after the outbreak of war (Table I).

It is significant, however, that grave as was the effect of the outbreak of war on the mortality of infants, it was less disastrous than the excessive summer heat of 1911.

(10) *Causes of increased mortality.*—The increase in the rate of infant mortality in the first months of war was observed with much concern by health authorities. Enquiries were made by a number of leaders in infant welfare work in order to determine the causes to which the increase might be attributed. The general consensus of opinion, arrived at independently by investigators in different towns and states, was that, although some influence must be attributed to the heat and drought of the two months in question, the rise was not in the main to be attributed to this cause.

Reference may be made in this connection to the experience of this country during the same period. The records for England and Wales do not show any higher mortality in the third quarter of 1914 than of 1913, so that, although the summer of 1914 was hotter and drier than the average, the conditions in this country were not specially unfavourable to infant life.

The main cause of the rise in the rate of infant mortality in Germany at this period was to be looked for, according to observers in that country, in the economic distress which followed on mobilisation. The calling up of the fathers of so many young families left the mothers with very meagre resources, while among the men not taken for military service there was for a time widespread unemployment. The excitement and general mental disturbance caused by war conditions seems also to have had a serious effect on the welfare of infants and young children; and, judging from some accounts, may have been the predominant factor in the high mortality rates.

(11) *Statistics for the years 1915 and 1916.*—The official statistics available for these years are those published weekly and monthly by the Imperial Health Office relating to places with a population of over 15,000. The total population living in these areas forms a little more than 40 per cent. of the total population of the German Empire, and includes communities under urban and semi-urban conditions. In these communities, taken as a whole, infant mortality was lower before the war than in the rural districts.

The figures officially given as the mean rates for the twenty-six largest towns (towns of more than 200,000 inhabitants), and for all places with 15,000 or more inhabitants, are shown below. The rates for England and Wales for the same years are given for comparison.

INFANT MORTALITY.*

GERMAN EMPIRE.

	1914.	1915.	1916.
Mean rate for twenty-six towns with 200,000 or more inhabitants. (Total population in 1914, 11,700,000.)	153	140	130
Mean rate for all places with 15,000 inhabitants or more. (Total population in 1914, 26,460,000.)	155	144	133

ENGLAND AND WALES.

	1914.	1915.	1916.
London and County Boroughs	116	120	101
All Urban Areas	109	115	95

* When the total number of births is falling, the infant death-rate calculated in the ordinary way tends to overstate the true rate of mortality; but the overstatement is not so great as might at first appear, because of the large proportion of deaths in the first weeks and months of life.

It will be seen from the above figures that the mortality among children under one year in German towns was lower in 1915 than in 1914, and that 1916 showed an improvement on 1915. In 1916 the towns of 15,000 inhabitants and over reached the low figure (for Germany) of 133 per thousand.

In England and Wales, on the contrary, the infant mortality rate was higher in 1915 than in 1914, but was much lower again in 1916. In all cases the rates for England and Wales are much lower than those for Germany.

Table K shows the mortality in the twenty-six largest German towns in the years 1913 to 1916. This table is compiled from the returns published periodically by the Imperial Health Office.

From this table it will be seen that in some towns (Frankfort, Hanover, Bremen, Hamburg, Dresden) the infant mortality rates have remained comparatively low during the first three years of the war. Even in 1914 there was no serious rise in these cases.

In other towns (for instance, Berlin, Leipzig, Charlottenburg and Breslau) although the rate throughout is comparatively high and there was an appreciable rise in 1914, the position in 1916 is either somewhat better or no worse than in 1913. In a few cases (for instance, Schöneberg, Danzig, Dortmund, Königsberg, Neukölln) the year 1916 showed a marked improvement on 1913.

The mean rate for all the towns indicates that on the whole the position in 1915 was practically the same as in 1913, while in 1916 there was a further improvement.

The decrease of infant mortality in the large towns is attributed by German writers to the imperial maternity grants and the greater activity in infant welfare work; but official journals and more cautious writers point out that the absence of excessive summer heat in both years must be regarded as the main factor. In support of this conclusion it may be mentioned that in the cases of five towns, Schöneberg, Charlottenburg, Hanover, Dresden and Hamburg, the rate for the third quarter was lower in both years, 1915 and 1916, than the rate for the whole year, while in five other towns the same observation applies to either one year or the other.

It appears that there has been a considerable migration of families from the large towns to the country districts during the war. It is stated in the reports of a number of welfare centres that mothers of young families went away to relatives in the country when their husbands were called up, in order to escape the food troubles and scarcity in the towns. These movements may have tended to increase infant mortality in the rural districts and to reduce it in the towns.

(12) *Statistics for the year 1917.*—The only figures available for 1917 are the returns issued monthly by the Imperial Statistical Office. These returns are in many cases incomplete. Those relating to the largest towns for the first half of the year do not show any great divergence from those for the same period of the four previous years, except that in a few towns, Cologne, Magdeburg, Duisburg and Hanover, the rates are higher than in the first half of any of the four previous years.

The rates for the third quarter of 1917, on the other hand, are higher in all the large towns, except four, than the rates for the third quarter of 1916; the difference varies from 22 per thousand in the case of Essen to 106 per thousand in the case of Königsberg. The rates also compare unfavourably with those for the third quarter of 1915 in all cases except six.

In three instances, Charlottenburg, Dresden and Frankfort, the rates for the third quarter of 1917 are above those for the third quarter of 1914, which, as previously stated, were exceptionally high in nearly all cases. This increased rate in the third quarter of 1917 can scarcely be attributed to climatic conditions, in view of the cold and wet weather which prevailed generally. It is possible

that the epidemic of dysentery which occurred in Germany during that year was not without influence on mortality among infants. The proportion of infant deaths due to intestinal troubles was considerably higher in July and August of that year than in the corresponding months of the two previous years or of the year 1913.*

(13) *Mortality in rural districts.*—The foregoing particulars relate only to urban districts. As previously indicated, in pre-war times the infant death-rate was generally speaking higher in the rural districts than in the towns, and there is no reason to suppose that this relation has been changed during the war. The returns for Prussia in 1914 show a rate of 160 in the urban districts and 167 in the rural districts. In Bavaria also, as may be seen by the figures in Table L, in the years 1914 and 1915 the infant mortality rates were much higher in the rural districts than in the towns, the smallest parishes, taken as a whole, having rates of 205 and 231 in the two years respectively. Figures for the rural districts in Bavaria in 1916 are not available, but the rates for the groups of towns of different sizes show the same relation as the figures given in the table for 1914 and 1915, being 145 for the towns with over 20,000 inhabitants and 176 for those with between 15,000 and 20,000 inhabitants.

IV.—GENERAL CONDITIONS AFFECTING INFANT WELFARE.

(a) CONDITIONS IN LARGE TOWNS.

(14) Apart from the direct administrative measures for ensuring the well-being of infants and young children referred to in later chapters, much activity had been displayed in some large towns before the war in improving the social conditions of the whole community. Attention had been given to the housing of the working classes, the provision of open spaces, the securing of milk for children, and the care of illegitimate children. In these matters there were, as might be expected, great differences between one town and another, towns in western and north-western Germany reaching a higher level, generally speaking, than those in the east and south-east.

It seems clear that the towns which had been most active before the war in furthering the general welfare of the people have shown the greatest improvement in their infant mortality rates both before and during the war. It is in the large towns that infant welfare work has progressed most rapidly. During the war these towns as a rule have taken the most active measures to grapple with food difficulties in the interests of their poorer inhabitants; and in distributing food they have, in many instances, given preference to expectant and nursing mothers and young children.

The statistics published by the Imperial Health Office with regard to the reduction of infant mortality in the towns as a whole have frequently been referred to in the German Press in a tone of self-congratulation, and surprise has been expressed that such results should have been achieved during the stress of a great war. The figures for the war years only are quoted, so that an impression of continuous progress is given. By omitting any reference to the statistics for rural districts, the reader is left to assume that the reduced infant mortality in the large towns is general throughout the empire.

(b) CONDITIONS IN COUNTRY DISTRICTS.

(15) While the infant death-rate has been reduced in many large towns, both before and during the war, reports from country districts show that little or no progress has been made in rural areas as a whole.

* Later figures, for October and November, 1917, for large towns continue to show, in most cases, a higher infant mortality in 1917 than in 1915 or 1916. The figures for December, 1917 (just received), indicate generally better conditions, compared with 1915 and 1916, than those for October and November, 1917.

As in the case of the towns there are considerable differences in this respect between different provinces and districts. In Prussia there are some provinces, for example, Schleswig-Holstein, Hanover and Hesse-Nassau, where the infant death-rate has always been and still is relatively low, but there are others, such as East Prussia, Silesia and Pomerania, where it has always been and still is very high.

Some light was thrown upon these high rates by a speaker at a recent congress of the Rural Welfare Association in Königsberg, who urged the great need for infant welfare work in the country districts in East Prussia. He pointed out that the general idea that infant welfare work was less important in the country because of the abundance of fresh air and good milk, and the fostering care of the land-owning classes, was altogether wrong. He stated that infant mortality in the country districts of East Prussia was much greater than in other provinces, in spite of the fact that the majority of mothers breast-fed their infants, the good influence of breast-feeding being counteracted by the low level of general culture. Facilities for travel are so scanty that many confinements must take place without the help of a midwife. Doctors are few and far between. Midwives, even if available, are ignorant, inefficient and superstitious. Plenty of fresh air there may be in the open country and in the fine houses of the landowners, but not in the huts of the peasants, where a single room, with small windows which can seldom be opened, serves as a living and sleeping place for the whole family, and often for animals as well. Above all things there is a lack of cleanliness. The patriarchal relationship, of which so much is said, has really disappeared; as a matter of fact, advice offered by women of the property-owning classes would be received with mistrust. The effect of breast-feeding is spoilt by the irregular way in which the children are often fed. Women working all day in the fields are apt to feed their children only at night, leaving them during the day with "something to suck."

The high infant death-rate in the country districts of Bavaria also is largely to be attributed to backward social and sanitary conditions.

In the first report (for the year 1915) of the Upper Franconian (Bavaria) District Association for Infant Welfare, the district doctor pointed out that the principal factors in producing the high infant mortality in the district were lack of cleanliness, the want of proper care for infants, and imperfect knowledge of the proper methods of feeding. There were not nearly enough midwives in the country districts. There had been some increase in the number of mothers who breast-fed their infants, but other harmful conditions must be removed before any good results could be seen.

Dr. Eidam, whose work in a Bavarian rural district is referred to later, observes that country people generally do not rightly understand the value of child life. They look upon it as a matter of course that a large number of children should die in their first year. He mentions the prevailing dirty and insanitary conditions, especially in the eastern parts of Bavaria, as being most harmful to infant life.

(c) EFFECT OF THE WAR ON INFANT HEALTH.

(16) Information as to the effect of the war on the health (as distinct from the mortality) of infants is scanty, and is derived mainly from a few reports made by doctors in charge of welfare centres and children's clinics or hospitals. From towns or districts where no special facilities exist for the treatment of infants and young children little information is forthcoming.

There appears to have been an increase in the number of cases of sickness among infants due to certain diseases, especially rickets and syphilis.

Rickets is said to have been increasingly prevalent in 1915. Not only were there more children suffering from this disease but the cases were of a more severe type.

It is stated that 23 per cent. of the infants brought to the infant welfare centres in Charlottenburg during 1915 were suffering from rickets in some degree, and in the case of a new centre opened at Treves in March 1916, 43 per cent. of the children who attended during the first year were found to be suffering from more or less severe rickets.

The increased number of cases of this disease is attributed by some doctors to the harder conditions under which the working classes were living, and to the dearness and scarcity of nourishing food, especially fat; by others to the damp, dark winter of 1915-16.

Some writers, while admitting that rickets has increased somewhat in prevalence, maintain that the variation is no more than normal, and might have occurred had there been no war.

A Mannheim report states that in view of the intensive infant welfare work undertaken in that town in the year 1915, and of the great increase in the number of breast-fed infants, it was hoped that there would be a diminution in the number of cases of summer diarrhoea. But this expectation was not fulfilled. Although the number of cases was not so high as in 1914, it was considerably higher than in 1913. Judging from the official returns as to causes of death, this experience was shared by a number of other large towns.

Reference is made in reports both for 1915 and 1916 to a considerable increase in the number of infants and young children suffering from skin disease. In some cases this increase is attributed to the worse household conditions and less cleanliness. The scarcity of soap is mentioned as affecting children.

Very little mention is made of tuberculosis in the reports for 1915 and 1916, but in a number of cases special arrangements have been made for the care of tuberculous children.

It is reported from some of the smaller towns that the lack of flour food, vegetables and, towards the end of the year 1916, of full cream milk, had a bad effect on the health of weaned and older children.

Reports from several centres refer to an increase in the number of syphilitic children. The Berlin centres in particular are making arrangements to provide special treatment for all such cases at an early stage.

Dr. Eidam states in a report of July, 1916, relating to a country district in Bavaria, that on the whole children were better nourished and in better health during 1915 and the first half of 1916 than in previous years. He attributes the improvement to the fact that mothers had more money to spend on food than usual. With separation allowances, the maternity grants, and the milk distributed by the Red Cross they were in many instances better off than before the war.

(17) *War infants*.—A controversy has been waged for some time in Germany as to whether the war had produced a new kind of infant. A Charlottenburg doctor first claimed to have observed so-called "war infants" (*Kriegsneugeborene*) both at infant welfare centres and in private practice. He described them as not actually ill, but small, backward in growth, delicate and thin, with wrinkled skin suggestive rather of old age than of infancy. They were not prematurely born infants, but under-developed at the time of birth. A constant restlessness, accompanied by automatic grasping movements, was a marked characteristic of this type of infant. The condition of these children was attributed to the anxiety and nervous strain endured by the mothers, as well as to insufficient and unsuitable food.

A number of medical men discussed this subject in various journals. The majority of them held that the war had not produced a special type, but many admitted that the general increase of excitement among mothers had led to an increase in the number of excitable infants, that a larger proportion were below the normal weight, developed slowly and were reared with difficulty. On the other hand, some writers maintained that on the whole the infants born during 1915 and 1916 were in better condition than those born in 1914.

V.—THE IMPERIAL MATERNITY GRANTS.

(18) *Origin of the grants.*—The principal measure adopted in Germany to promote infant welfare during the war has been the distribution of the imperial maternity grants. As previously stated, it was generally believed that the rise in the infant death-rate in the first months of the war was due mainly to economic distress. The cost of food and of the necessities of life rose rapidly in Germany in the earliest days of the war, and the separation allowances given to the wives and families of soldiers out of imperial funds were very small. The imperial maternity grants were intended as a remedy.

The law of 4th August, 1914, fixed the imperial allowances at 9s. a month for a soldier's wife and 6s. a month for each child during the six summer months, and 12s. and 6s. a month respectively in the winter months. The winter rate came into force on 1st November, 1914, and was continued in force, after the winter, by a special decree. In the autumn of 1915 the allowances were increased to 15s. and 7s. 6d., and these rates were continued during the summer of 1916. In November of that year the allowances were increased to 20s. and 10s., and again in October, 1917, to 30s. and 15s.

Additions to these allowances are made from communal and other public and charitable funds in the case of nearly all towns; each communal authority fixes its own scale, and the amounts given vary considerably. Many large towns gave an amount equal to the imperial allowance in the early days. A good deal of assistance is given in kind in a number of towns.

Separation allowances are not given to all soldiers' wives as a matter of course. "Necessity" must first be proved, but instructions have been given that the term "necessity" is to be liberally interpreted.

Cases occurred in the early days of the distribution of grants in which the separation allowance was refused to wives of soldiers on the ground that, as they were receiving maternity benefit, they were not in need. The imperial authorities, however, decided that the receipt of maternity benefit was not to be a reason for refusing the separation allowance.

It was clearly difficult for a woman to meet the extra expenses connected with the birth of a child out of the small allowance given at the beginning of the war, and there was a general demand for some further provision to be made for soldiers' wives in these circumstances. The Government, in response to this demand, decided to provide for the payment of maternity grants, partly out of imperial funds and partly out of sickness insurance funds, to the wives of men on active service. Part of the £10,000,000 voted by the Reichstag for war relief purposes was to be used to meet the imperial payments.

Provision for maternity benefit had previously been made to a certain extent through the imperial scheme of sickness insurance; and it was provided that the new grants should be linked up with this scheme and administered largely through the sickness insurance societies—not always, as experience showed, with the best results.

(19) *Maternity benefit under the Imperial Insurance Law.*—The Imperial Insurance Law of 1910 provided for the compulsory payment of money benefit (equal to sickness benefit) in respect of confinement to all insured women for eight weeks, at least six of which were to be after the confinement. In addition, the discretionary powers conferred upon societies enabled them:—

(a) With the consent of the insured woman:—

- (i) to provide nursing and attendance in a maternity home instead of giving money payments;
- (ii) to provide domestic help in the home, and for this purpose to retain one-half the money payment.

(b) To provide free medical or midwifery attendance for all insured women.

- (c) To pay sickness benefit during pregnancy for a period of six weeks, and to provide medical or midwifery attendance, where necessary, during the same period.
- (d) To pay an allowance equal to half sickness benefit for breast-feeding for twelve weeks.
- (e) To extend maternity benefits to the uninsured wives of insured men.

The number of insured women was added to in 1910 by the inclusion of domestic servants, farm hands, casual workers, and workers in all industries carried on at home. These persons were, however, insured in separate societies, and in their case the sickness societies were required to pay maternity benefit for four weeks only, although they had power to pay for eight weeks if they wished. The number of women brought into insurance was further extended by an Order of the 1st of January, 1914.

Societies generally were reluctant to make use of their discretionary power to give additional benefits (which, of course, were generally possible only with additional premiums), although constantly urged to do so by social reformers and philanthropic organisations. Statistics for the Grand Duchy of Hesse, quoted in March 1914, as being exceptionally satisfactory owing to the efforts of the Infant Welfare Association, showed that, at that date, of the 133 sickness societies in the Grand Duchy, 85 had introduced additional benefits for their insured women members. Of this number, 58 gave medical and midwifery attention at confinement; 44 medical treatment during pregnancy; while 17 gave an allowance for breast-feeding. Thirty-six societies had extended some or all of these benefits to the uninsured wives of insured men.

(20) *Position of the sickness insurance societies on the outbreak of war.*—It was feared that the economic changes brought about by the war would have so adverse an effect upon the funds of sickness insurance societies that it would be necessary to limit their payments as far as possible in order to insure their stability. An imperial Emergency Law was therefore passed on the 4th August, 1914, which restricted payments out of the funds of sickness societies to the compulsory benefits provided for under the Insurance Law, and suspended all additional benefits for the duration of the war. The result of this Law was that the only benefit received by insured women at maternity was the money benefit, equal to sickness benefit, for eight weeks or four weeks, as the case might be. Medical attendance during pregnancy and at confinement ceased to be provided, and all breast-feeding allowances were stopped.

It soon became evident, however, that the funds of sickness insurance societies had not suffered to nearly the extent feared, and that it would be safe to allow them to resume some part at least of their burden.

Since the number of insured women was small relatively to the total number of those needing help during the war, and the number of those entitled to more than minimum benefits much smaller still, a provision which benefited insured women only would have been wholly inadequate. It was agreed that all wives of soldiers, whether insured or not, must receive assistance.

(21) *Institution of imperial grants.*—The Federal Order authorising the imperial grants appeared on the 3rd December, 1914. It provided for the payment of the following allowances:—

- (a) A single payment of 25s. towards the expenses of confinement.
- (b) An allowance of 1s. daily, including Sundays and holidays, for eight weeks, at least six of which must be after the confinement.
- (c) A grant up to 10s. for medical attendance during pregnancy, if needed.
- (d) An allowance for breast-feeding at the rate of 6d. a day, including Sundays and holidays, for twelve weeks after confinement.

The sickness insurance societies had power to substitute medical or midwifery attendance for (a) and (c), with the consent of the insured woman.

Under the Order three groups of women were entitled to benefit :—

Group I.—Women who were given a claim to maternity benefit under the Federal Order, but did not come within the sickness insurance law ; that is, non-insured wives of insured soldiers.

Group II.—Women who were given a claim to maternity benefit under the Federal Order and also came within the sickness insurance law ; that is, insured wives of insured soldiers.

Group III.—Women who came within the sickness insurance law, but were not given a claim under the Federal Order (except that their insurance rights were extended) ; that is, insured wives of non-insured soldiers, or of men not serving in the war.

Women in Group I received the payments exactly as set out above. The highest sum which could be received by any woman in Group I was £6 13s. 0d.

Women in Group II might receive a higher maternity allowance than 1s. a day, if insured for more, but were not to receive less ; the other payments were the same as in Group I.

Women in Group III might receive a lower maternity benefit than 1s. a day if insured for less ; the other payments were the same as in Group I.

All three groups were to receive their allowances through the sickness insurance societies of which either they or their husbands were members.

The following table shows how the cost of grants is met in the case of each group :—

	Imperial Funds.	Funds of Sickness Insurance Societies.
Group I 	All payments.	_____
Group II 	All payments except the maternity allowance (b) .	The maternity allowance (b).
Group III 	_____	All payments.

In order to help societies to bear the extra burden thrown upon them by the Imperial Order, it was arranged that they should be able to obtain loans from the State Insurance Institutions for invalidity insurance at a low rate of interest, the loans to be repayable within ten years.

(22) *New classes included.*—In deference to the widely expressed opinion that the imperial maternity grants ought to be extended to the wives of men not eligible for insurance, *e.g.*, small craftsmen and tradesmen, a further Order, issued in April, 1915, extended the grants to :—

- (i) All soldiers' wives who were receiving separation allowances,* and
- (ii) Soldiers' wives of small means, whose husbands were not insured.

" Small means " were interpreted as a combined income of not more than £125 or, after the husband had gone, an income of not more than £75 for the wife and £12 10s. 0d. for each child under 15 years of age.

A woman coming within class (ii) receives only the money allowance for eight weeks, unless there is evidence that she needs further help.

The allowances to these additional classes of women could not be paid through the sickness societies, as neither the women themselves nor their husbands were insured persons. The investigation and payment of their claims was therefore entrusted to the local bodies who are responsible for paying the imperial allowances to soldiers' families.

* As previously stated, soldiers' wives do not receive separation allowances as a matter of course.

The cost of the allowances to these additional classes of women is borne entirely by imperial funds.

The increased separation allowance and the maternity grant were not considered enough to enable women to meet the cost of living. By a Federal Order of the 6th June 1917 the maternity grant of 1s. a day for eight weeks was raised to 1s. 6d.

A Federal Order of 6th July, 1917, extended the imperial maternity grants to women whose husbands were employed on patriotic auxiliary service, and who were not entitled to the grants under earlier Orders. In these cases, applicants for the grant were required to prove that the economic position of the husband had been impaired by his employment on patriotic service, and that they were in need of the assistance. This last condition was to be determined with reference to an income limit.

Women who were themselves employed on patriotic auxiliary service were entitled to grants, provided the joint income of husband and wife was below a certain amount.

The cost of the grants in these cases is divided between the sickness insurance societies and imperial funds in the same way as the allowances to the wives of soldiers.

The results of the imperial maternity grants and some comments on their administration are stated in the next chapter.

VI.—INFANT WELFARE WORK.

(a) BEFORE THE WAR.

(23) *The beginning of the infant welfare movement.*—Until the close of the last century, most of the work done for the welfare of infants was institutional in character; for example, orphanages, children's hospitals, convalescent homes, etc., were set up in which children deprived of parental care, or needing medical attention and nursing, were received. A number of crèches were also in existence.

In the early years of the present century a new movement was begun. Previous efforts had been directed to remedying defects rather than removing causes, and did not by any means cover the whole ground of infant protection. Those who led the new movement realised that in future a new aim must be given to infant welfare work. The infants cared for in institutions were after all only a small proportion of those whose lives were endangered by improper feeding or other harmful conditions. If all these were to be reached, the aim must be to set the mothers themselves on the right road by giving them advice and help in rearing their infants; the new developments must be non-institutional in character, and must not involve the separation of the children from their mothers.

Efforts to promote the well-being of infants and young children in the past had been almost entirely dependent upon charity; but, as the new movement developed, it became clear that the care of mothers and infants was too large a question to be left entirely to private benevolence, and that the State and the municipality must take their due share of the burden.

An impetus was given to the development of infant welfare work by the International Congress on the "Gouttes de Lait" in Paris in 1905. The few German delegates who attended this congress were impressed by the accounts given of the organised infant welfare work which was being done in France. Much interest was aroused in the movement, and by the time the second International Congress met in Brussels in 1907 the "Imperial Association for

the Care of Infants " had been formed in Germany with the object of encouraging, organising and directing the development of infant welfare work in all parts of the empire.

(24) *Infant welfare associations.*—The most important feature of the new movement was the formation of local societies, chiefly in the large towns, for promoting infant welfare, and the establishment by the societies of infant welfare centres. In 1915 there were nearly 800 such centres, distributed among the areas of 550 local authorities.

Central associations for directing infant welfare work have been set up in all the larger States and in many of the smaller divisions of the empire. Prussia and Saxony were the first to take this step in 1907, and Bavaria followed in 1908. The Grand Duchy of Mecklenburg-Schwerin set up a central association as recently as March, 1917.

The Imperial Association for the Care of Infants keeps in touch with all these State associations.

(25) *Breast-feeding allowances.*—The encouragement of breast-feeding by means of allowances in money and kind has been regarded in Germany as one of the most powerful means of furthering infant welfare. In the reports of many centres reference is made to the increasing amounts disbursed year by year before the war in the form of such allowances. Some leaders in infant welfare work go so far as to say that the giving of breast-feeding allowances is the sole secret of the successful working of a welfare centre.

Objections have been raised to the policy, especially to the giving of money, on social grounds, and some welfare associations, that of Hesse-Nassau for instance, did not adopt the practice ; but it is defended by its advocates as the only means of helping a poor mother to fulfil her natural duty, and as the most powerful inducement to mothers to bring their infants regularly to the centres.

(26) *Municipal infant care work.*—Infant welfare work is now, in many towns, a branch of municipal activity, the expense of the centres, visitors, etc., being borne partly or wholly by municipal funds. In Berlin there are nine centres controlled by the municipality, one of which is a children's clinic. In Cologne there are thirteen centres, and in Leipzig six. Generally speaking, the work was initiated by private societies and afterwards taken over by the municipality. In some towns the centres are under the control of a welfare association, on which various public bodies and societies are represented, and financial help is given by the municipal authority.

Many large towns made special grants out of municipal funds towards the allowances given by the centres for breast-feeding. Considerable sums have been contributed in this way out of public money by municipal authorities. For instance, Cologne's first payments for this purpose were made in 1908, when a sum of £1,192 was allotted ; the contribution increased yearly, until in 1914 it amounted to £2,248.

(27) *Co-operation of sickness societies.*—In many instances the local sickness societies made grants to the welfare centres in return for the supervision of maternity cases which have a claim upon the societies. For example, in Chemnitz the District Sickness Society introduced breast-feeding allowances as an additional benefit at the beginning of 1914, and made an agreement with the Infant Welfare Association to supervise, through its welfare centre, all mothers who claimed the benefit, and to give certificates to those who carried out the conditions. In return for these services the sickness society was to make a grant of £150 a year to the Infant Welfare Association.

In Berlin, Frankfort and other large towns where good results of infant welfare work are recorded, a considerable measure of co-operation between the infant welfare workers and the sickness societies has been achieved.

(28) *Co-operation of midwives.*—The importance of securing the co-operation of midwives in infant welfare work has not been overlooked. The midwives as a body were inclined to show hostility to the movement in its early stages, and this spirit has by no means yet disappeared. In some towns the centres have adopted the plan of paying a small fee to the midwives in respect of every mother whom they persuade to attend the centre.

Plans are being discussed for including instruction in infant care in the courses of training for midwives.

(29) *Infant welfare work in the country.*—An interesting example of infant welfare work in a country district is that carried out by Dr. Eidam, as medical officer for the district of Gunzenhausen, about thirty-five to forty miles south of Nuremberg. Dr. Eidam observed that the visit for the purpose of vaccination was often the only opportunity the doctor had of coming into contact with the mother of a young infant. He therefore induced the doctors to use this opportunity to impress upon mothers the importance of breast-feeding their infants, and to give any other advice that seemed necessary. At the same time the doctor filled up a form showing how each child was being fed, and forwarded it to Dr. Eidam. It was also arranged for the midwives in the district to visit mothers whom they had attended until the infant was nine months old, and to report at intervals as to the manner of feeding. A small fee was paid to the midwives by the district authorities for this service. Dr. Eidam stated that, after seven years' work on these lines, the number of breast-fed infants had increased from 60 to 80 per cent., and the infant death-rate of the district had been reduced.

(b) DURING THE WAR.

(30) *Effect of mobilisation on infant welfare work.*—The outbreak of war and consequent mobilisation caused a sudden interruption of infant welfare work in nearly all towns. In a large number of instances the doctor in charge of the work was called up for military service, or the welfare workers were taken for army nursing, and the centres had to be closed. Many of the institutions for infants were turned into military hospitals. In the Grand Duchy of Hesse, for instance, one-fourth of all the centres were closed, and an infants' home in Darmstadt was turned into a military hospital. In Cologne five of the fourteen centres were closed; one of the buildings has been used as a military hospital ever since; the others were re-opened after intervals of from two to six months. In Kiel the medical superintendent was mobilised, while the larger of the two infants' homes was closed and offered to the military authorities on the 5th August; towards the end of September the authorities decided not to accept the building, and the home was re-opened for the reception of infants.

Some centres which remained open were obliged to cut down the number of consultations for want of doctors or nursing staff.

Many centres which continued their work as usual report that the attendance of mothers fell off very considerably during August and September. This was partly accounted for by the fact that many families moved to the country when the father went into the army; foster children were also in many cases taken to grandparents in the country as soon as they were old enough. In only one case, Charlottenburg, was a better attendance than usual noted in August and September, 1914.

It is reported from some centres that their visitors rarely found the mothers at home during the first few weeks of the war; they were generally wandering about, watching and waiting for military events. It would seem that the excitement and general unrest which followed on mobilisation had a most harmful effect upon the health and well-being of infants of all classes. Many mothers, even among the well-to-do, are said to have neglected their infants at this time, and in many instances mental distress deprived mothers of the power to feed their infants at the breast.

In Mannheim the municipal crèche, which was usually closed during August, was specially kept open after the outbreak of war, as it was believed that an unusual number of children would need to be cared for while the mothers went out to work; but, contrary to expectation, very few children were brought to the crèche during August and September.

(31) *Revival of infant welfare activity.*—For a time the mobilisation of the fighting forces seems to have absorbed all the attention, and the welfare of the mothers and children left behind was almost forgotten. In a letter addressed to the Imperial Association for the Care of Infants, on the 12th of August, the Kaiserin pointed out that it would be a fatal mistake to allow infant welfare work to lapse, or its institutions to be crippled, even for military considerations.

The alarm occasioned by the sudden increase in infant mortality during the first months of war led to efforts being made in all directions to revive and extend infant welfare work.

Leading infant welfare workers protested against the withdrawal for army service of nurses skilled in infant care; as a result of their representation nurses were gradually released by the military authorities and allowed to return to their former work.

After a time most infant welfare associations found themselves able to carry on their primary functions, even though travelling courses for instruction, exhibitions, the training of nurses, etc., could not at once be resumed.

Early in 1915 the Imperial Association for the Care of Infants issued an appeal to all its affiliated associations urging them to continue and, if possible, to extend their activities, in view of the increasing number of mothers who were obliged to go out to work in order to support their families.

(32) *Extension of infant welfare work.*—There has been a great extension of infant welfare work generally during the last two years. New associations have been formed and centres opened in a number of towns where none previously existed. Here and there schemes have been inaugurated in rural districts. Skilled welfare workers are now greatly in demand, and numerous special training courses have been established to increase the supply. The municipality of Charlottenburg, for instance, has lately arranged courses for both paid and voluntary workers. The need is so urgent that many volunteers are obliged to take up their new duties with very little preparation.

The Prussian Government have recently instituted a scheme for granting diplomas, similar to those granted to nurses, to infant welfare workers who have taken a regular course of training and passed a prescribed examination. The examinations are to be conducted under the direction of the President of each Government District on lines laid down by the Ministry of the Interior.

(33) *Care of young children.*—The importance of caring for children above the age of infancy, children from one to five years of age, had been recognised by welfare workers before the war, especially in view of the fact that there had been little or no reduction in the death-rate of children between these ages in recent years. Under the difficult conditions as to food prevailing during the war, young children are specially likely to suffer. The scarcity of milk, flour, fat, etc., affects them adversely. For these reasons many welfare centres have made arrangements to look after children up to a higher age than formerly. The Imperial Association for the Care of Infants decided at the close of 1916 to bring young children within its scope, and it is now urging all its affiliated associations to keep children under observation up to five years of age. The Central State Office for Infant Care in Bavaria resolved at its last general meeting to extend its care functions to young children.

(34) *Ante-natal work.*—Ante-natal care is one of the most recent developments of infant welfare work. A beginning has been made by setting up, in connection with the welfare centres, clinics where expectant mothers may

receive advice and treatment, and the need for extending this branch of the work is generally recognised. It is stated that very few women claim the allowance provided for in the imperial maternity grants (any sum not exceeding 10s.) for medical or midwifery attendance during pregnancy. The sickness insurance societies of several large towns report that their total payments for this purpose during 1916 amounted only to a negligible sum (£4 4s. in the case of Nuremberg and 16s. in that of Weimar).

Considerable sums have been spent in some towns on special nourishment for expectant mothers. In Magdeburg a scheme was organised in the early days of the war under which private persons undertook to provide dinners for expectant mothers in needy circumstances, the town being divided into twenty districts for this purpose.

(35) *An imperial fund.*—In the spring of 1916 a movement was set on foot by the leaders of infant welfare work in Berlin to form an Imperial Fund ("Deutsche Spende") for the support of infant welfare work in all parts of the empire. It was arranged that the money collected in each individual State should be handed over to the Central Association for the Care of Infants in that State. Where no central association existed the money was to be used, first of all, in establishing one. In urging the claims of this fund upon public attention, it has been repeatedly pointed out that the organisation of infant welfare work is by no means evenly distributed in all parts of the empire. In some places very little is done, and in many large areas no attention at all is paid to the subject.

(36) *Infant welfare work in the country.*—Many thoughtful persons are well aware that an infant welfare campaign is needed in the country districts. It is generally recognised that the methods adopted in the towns are impossible in the country, owing to the long distances which mothers would have to travel to reach the centres or the health visitor to go to them. The scheme adopted in one country district of Bavaria has already been described. Various other suggestions have been made, such as :—

That infant welfare associations in the towns should endeavour to extend their area of work to surrounding rural districts. This plan has recently been adopted in a few cases, for example, Chemnitz ;

That instruction should be given to the elder girls in the elementary and secondary schools, the necessary courses being first of all provided for the teachers in training schools and elsewhere ;

That the assistance of the Press should be enlisted, and paragraphs and articles inserted in parish magazines, mission leaflets, etc. The almanack which finds a place in every home in country districts might also be utilised ;

That more thorough training should be provided for midwives, and a better class of woman attracted to the work by raising the standard of the profession and guaranteeing a minimum salary out of public funds ;

That small but well-equipped maternity homes should be established at convenient centres for country districts. (In the whole of the provinces of East and West Prussia there were only seven such institutions in 1909, with a total provision of just over 200 beds) ;

That teachers should be appointed to go from village to village to give simple courses of instruction.

(37) *Demand for imperial law.*—Towards the close of 1916 a conference was called by the leaders of infant welfare work, at which representatives of the Imperial and Prussian Governments were present, to consider proposals for setting up infant welfare organisations in every local authority's district throughout the empire, and to urge the need for an imperial law making the adoption of infant welfare measures compulsory upon all local authorities.

Stress was laid upon the harm done to the whole community by the neglect of so many local authorities to take steps in this direction, the good effect of the work done by progressive districts being counteracted by the indifference of the others.

This demand for a general law has met with a considerable degree of support, but the proposals made have not yet materialised.

(c) WELFARE CENTRES AND THE IMPERIAL MATERNITY GRANTS.

(38) *Effect of the grants on infant welfare work.*—The appearance of the Order relating to maternity grants was hailed by some leaders in infant welfare work as "the greatest social event of the war," and as "the first sign of imperial concern for the welfare of mothers and infants." It was confidently hoped that the imperial allowances would strengthen the hands of welfare workers in their efforts to revive and to extend the breast-feeding of infants generally.

A little experience of the working of the Order, however, produced a change of tone. The welfare centres, many of which had hitherto given allowances in money or kind to mothers who breast-fed their infants, had been able to impose a condition that the mother should bring the child regularly to the centre and observe its rules. Under the new Order the sickness insurance societies were required to distribute the imperial grants to all who had a legal claim, and it was left to the societies to decide what evidence, if any, they would require that a mother was really breast-feeding her infant.

When mothers became entitled to receive the allowances direct from the sickness insurance societies the effectiveness of the welfare centres was seriously undermined. Attendances fell off rapidly, and mothers and infants were thus deprived of beneficial influence.

Many prominent persons urged that the allowances for breast-feeding should be made through the welfare centres, and should be conditional upon regular attendance. A petition in this sense was made to the Government, but the Minister who replied stated that it would be contrary to all precedent to impose such a condition. He suggested that the infant welfare centres should offer a further allowance out of their own resources to be given after the lapse of the twelve weeks covered by the imperial grant, on condition that the infant was brought regularly to the centre and the rules of the centre observed during the whole period. The Government also suggested to the sickness insurance societies that they should notify the infant welfare associations of every case in which an allowance was being paid, and direct the mothers to go to welfare centres for help and advice.

(39) *Administration of grants through centres.*—Some infant welfare associations had already realised that the only way to turn the imperial grants to good account was to secure that the sickness insurance societies should work in close touch with them. In the majority of cases where infant welfare work was well organised, those who directed it approached the societies with the proposal that the breast-feeding allowances should be paid by the societies only to those mothers who produced a certificate from the welfare centre stating that they were fulfilling the condition. It would seem that in course of time the sickness societies in most towns where infant welfare associations existed came to some agreement of this kind, and that in many cases they were willing to make a suitable payment to the welfare centres for performing this duty. In some instances negotiations occupied six or eight months; in others the smaller societies only refused to come into line; this happened in Berlin.

In a number of cases the centres themselves give allowances, out of their own funds or out of municipal grants, to mothers who have no claim to the imperial grants, and further premiums to those who have a claim, if they continue to breast-feed their infants after the three months. These latter

payments often take the form of a single payment at the end of one or more fixed periods. Thus, in Cologne, 6s. is given at the end of the fifth month and a further 10s. at the end of the ninth month. In Mannheim 3s. is given at the end of the fourth month. In another instance 6s. is given at the end of the sixth month, and an additional 5s. at the end of the eighth month.

It is definitely stated in a few cases that agreements with regard to the supervision of nursing mothers were made between the local bodies who pay the separation allowances and the infant welfare associations; and it is probable that such agreements are fairly general, especially where infant welfare work is municipally controlled or assisted.

Where no welfare association existed, or where there was no co-operation between the association and the societies, the latter appear frequently to have contented themselves with a certificate from the midwife that the applicant was breast-feeding her infant.

In some towns and districts where the sickness insurance societies do not co-operate with the infant welfare societies it is reported that the imperial grants are largely wasted or misspent by the mothers, instead of being expended on nourishing food for themselves or their infants. The hope is still expressed in many quarters that some way may be found of compelling the societies in every district to work with the welfare centres in distributing the grants.

While there is complaint that the sickness insurance societies do not all work in harmony with the infant welfare movement, it is clear that the district societies in some of the large towns are doing good work on behalf of their members who claim maternity benefit. Agreements have been made with maternity homes so that mothers can if they wish go into them instead of claiming the money grants. Other societies have arranged for "home helps" to look after the mother in her own home for a certain number of days after confinement. In several towns, including Hamburg, the societies have appointed visitors (generally midwives) to visit and advise the mothers at regular intervals, and to give a certificate as to breast-feeding. Many societies make periodical enquiries through their officials as to the number of breast-fed infants, the period during which breast-feeding is continued, and the effect on the health and mortality of infants.

(40) *Effect of the grants on breast-feeding.*—The most striking effect of the imperial allowances was the great increase in the number of breast-fed children among those attending the centres. A Mannheim physician said: "The revival of breast-feeding, for which we have striven so long in years of peace, has suddenly come to pass in the midst of the world war." Of the mothers of the 4,952 children born in Mannheim during 1915, 2,463 claimed the imperial maternity grants, and 92 per cent. of these breast-fed their infants at least for a time. In Cologne 80 per cent. of the infants brought to the centres during 1915 were breast-fed.

Reports from the majority of infant welfare centres speak of a great increase in the number of infants breast-fed in the first three months of life. The number of women found to be unable to breast-feed their infants is very small.

Many infant welfare workers hoped that the economic conditions produced by the outbreak of war would have the effect of inducing mothers to breast-feed their infants. One leading authority remarks regretfully that no such effect was produced among the mothers of Germany, and that nothing but the hope of an allowance secured the desired result.

It is recorded from a large number of centres that mothers discontinue breast-feeding immediately the imperial allowance ceases, regardless of the well-being of their infants. In some cases the further allowance which the centre can afford is too small in comparison with the imperial allowance to induce them to go on; in other cases no further allowance can be offered.

The general opinion is that some way should be found for continuing the allowance beyond the first three months, this period not being long enough

to protect the infant from later suffering. A number of centres report that infants who were breast-fed up to three months, and then suddenly weaned, were peculiarly susceptible to digestive troubles, especially where the change took place during the hot weather. The tendency everywhere is for mothers to cease to attend the centres when the allowance can no longer be claimed. The infants are thus deprived of care and supervision at the very time when they are exposed to fresh danger from artificial feeding. It seems to have happened in many cases that so long as the imperial allowance was forthcoming the mothers remained at home, but as soon as these payments came to an end they sought some paid employment outside the home and the infants were weaned and left to the care of other persons.

In Danzig it was found that the imperial maternity grants made no difference in the number of breast-fed infants, and had no influence on the death-rate among the children of soldiers' wives during the year 1915. An infant welfare association was started in January, 1916. Fifteen months' work, with the administration of the allowances in co-operation with the centres, brought about an increase from 40 to 60 per cent. in the number of breast-fed infants; and the death-rate among legitimate infants, which had been 177 per thousand in 1914 and 159 in 1915, fell to 109 in 1916. "It is clear," says the town doctor in his report, "that money grants alone, without the advice and supervision afforded by infant welfare work, could not produce the desired results."

(41) *Demand for continuance of grants after the war.*—There is a demand among leaders in infant welfare work for the continuance of the imperial maternity grants after the war. All are not agreed as to how the necessary funds should be raised or by whom they should be administered. The sickness insurance societies do not by any means cover all the ground. Most persons consider it essential that imperial or state funds should give some assistance.

(d) CARE OF CHILDREN IN INSTITUTIONS.

(42) *Infant welfare work and institutional care.*—While the new movement for promoting infant welfare through the instruction of mothers and the encouragement of breast-feeding is much the more important, there are still a certain number of children who must be cared for in institutions of various kinds—infants' homes, children's hospitals or crèches. The greater concern for infant welfare generally has stimulated interest in these institutions, and kindled a desire to bring their work into harmony with the new movement. The tendency now is to connect their work as far as possible with that of the welfare centres.

(43) *Infants' homes.*—There are in Germany, as in other countries, a number of orphanages and homes for infants and young children carried on by religious and philanthropic societies and by private benevolence.

In addition, a number of towns have established, within the last ten to fifteen years, municipal "Infants' Homes," in which infants chargeable to public funds are cared for until they are old enough to be boarded out; in some instances other infants needing special care are received for a time. Training schools for children's nurses are often attached to these institutions. The work of the infants' homes and of the welfare centres, especially where both are under municipal control, is often closely associated.

A considerable number of new infants' homes have been opened during the last two years. In many cases it has been decided to keep the children in the home until a later age than has hitherto been the custom, because of the difficulty of boarding them out under the present food conditions. Many homes now shelter the infants of mothers who are employed on war work.

(44) *Children's hospitals.*—Some German towns have special hospitals for infants and young children, generally with a children's clinic attached. Some

of these hospitals have been in existence long enough to have accumulated considerable experience and valuable records. In some cases, *e.g.*, at Charlottenburg and Mannheim, the municipality carries on an infants' home and a children's hospital under the same medical supervision.

It may be mentioned in this connection that a large number of the general hospitals in Germany are municipal.

(45) *Crèches and Children's Shelters*.—The crèche is a familiar institution in most German towns, especially in those where large numbers of women work outside their homes. Crèches are generally managed by philanthropic societies, and supported by voluntary subscriptions, grants from public funds, and the payments made by the mothers. Children between the ages of six weeks and two to three years are admitted.

The Berlin Crèche Association, for instance, has been in existence for nearly forty years; it had six crèches before the war, in which provision was made for more than 1,000 children. A large proportion of these children were infants under one year of age.

Some municipal authorities have now their own crèches, which form part of the scheme of infant welfare work.

(46) *Extension of crèches during the war*.—When war first broke out a number of new crèches were opened in Berlin and other large towns by well-meaning persons who thought that mothers of families would be compelled to seek work outside their homes in large numbers. Many of these institutions were located in parts of the town where they were least wanted, often in unsuitable premises, and staffed by untrained and inexperienced persons; few of them were under medical supervision. The crèche movement was somewhat discredited by these ill-advised efforts; and much harm might have been done had not most of the crèches remained almost empty, as few women obtained work outside their homes at once, and those who did so showed little disposition to place their children in crèches. Most of these mushroom institutions were closed after a few months.

Later, in view of the large and increasing number of women who have entered munition and other factories, the crèche associations in most large towns have extended their work. New crèches have been opened in localities where they are needed. Several were started in Berlin during 1916, and the number of children looked after was increased by more than 400. Arrangements have been made for some of the crèches to be kept open at night to take charge of the children of women working on night shifts.

In Barmen a room has been set aside in the municipal crèche for the use of mothers who come in the intervals of work to nurse their children, and a cup of hot soup is provided for them at each visit.

The employment of increasing numbers of women in industry gives rise to much anxiety among infant welfare workers. It is urged in some quarters that mothers should not be allowed to work for three months after the birth of a child, and in others that the mothers of young infants should at least be prohibited from working on night shifts. Not much heed is paid to these suggestions; on the contrary, more and more women are drawn into factory work. The leaders in infant welfare work press for the establishment, either by the military or the civil authorities, of crèches in or near every place where fifty or more women are employed, and for regulations which will allow the women time to suckle their infants at suitable intervals without loss of pay.

In response to these demands the Women's Division of the Patriotic Auxiliary Service Office has made a special effort to induce crèche associations to establish crèches in the vicinity of every factory where a number of women are employed. Employers are being urged to afford the use of suitable premises for crèches, and to contribute towards the expense of maintaining them. In many cases they have given material help. The War Bureau has set aside certain sums of money towards paying the salaries

of superintendents of crèches and children's shelters in connection with war industries. It has been arranged that a contribution shall be made to crèches established for women employed in State workshops ; the mothers themselves will make some payment.

It is hoped that the provision of crèches will act as an inducement to women to volunteer for " work of national importance " ; but the mothers as a rule seem very unwilling to commit their children to the care of these institutions, preferring wherever possible to leave them in the charge of relatives or neighbours. Various plans have been put forward for overcoming the prejudice of the mothers. It is suggested that each member of the crèche committee should make herself responsible for a particular child or children, and that the advantages of the crèche from a sanitary and educational point of view should be carefully and sympathetically explained to the mothers. It is feared that the children may suffer through being left to the care of neighbours, especially in view of the food difficulties. Some writers insist that a licence should be required by persons who undertake to look after children during the day in return for payment, and that their dwellings should be under inspection. A measure of this kind has been for some time in operation throughout the Government District of Düsseldorf.

(e) CARE OF ILLEGITIMATE CHILDREN.

(47) *Percentage of illegitimate births.*—The general rate of infant mortality in Germany is greatly influenced by the high percentage of illegitimacy.

In the whole of the German Empire the proportion of illegitimate births is between 9 and 10 per cent. In certain districts the rate is much higher. The proportion of illegitimate births fell significantly in the decade immediately following the Franco-Prussian War, and rose again in the next decade. The average for each of the following two decades has shown some decrease.

If, however, the figures for each year since 1900 be taken, it will be seen that the lowest figure was reached in 1903 (when it was 8·3 per cent.), and that from that date up to 1912 (when it was 9·5 per cent.) there has been a gradual but steady increase in the percentage of illegitimacy (Table M). This increased proportion of illegitimate births is due to a more rapid decline in the legitimate than in the illegitimate birth-rate, and not to an actual increase in the number of illegitimate births.

(48) *Mortality among illegitimate infants.*—The death-rate among illegitimate infants is much higher than among the legitimate. As will be seen in Table N, the effect of this high mortality among the illegitimate is to bring the general infant death-rate up to about 10 per thousand above the rate for legitimate infants. The increasing proportion of illegitimate births acquires additional importance in view of the higher mortality among them.

(49) *Measures for the protection of illegitimate children.*—The problem of caring for illegitimate children had received attention in Germany long before the beginning of the infant welfare movement, but it is only in recent years that the need for comprehensive measures on their behalf has been fully realised. Organisations whose special object was to care for illegitimate children claim to have shown the way to modern infant welfare work ; on the other hand, infant welfare workers could not fail to be impressed by the striking differences in the death-rates of legitimate and illegitimate infants, and they have urged that every possible means should be taken to prevent the high mortality among the latter. The two movements appear to have reacted upon each other to the advantage of both.

In the course of the present century most of the States have introduced laws providing for some measure of guardianship for illegitimate children. The first step generally was to give to the directors of public educational and poor law institutions legal guardianship over the children therein maintained, the guardianship continuing until the children were of full age, even though they might have left the institution.

In some States, *e.g.*, Prussia, Baden and Hesse, later legislation provided that all children maintained out of public funds should be placed under guardianship, whether boarded out with relatives or foster-mothers, or supported in institutions. In Bavaria and Saxony the law provides for the supervision of all illegitimate children, whether maintained out of public funds or not. Hamburg has adopted the same measure.

The application and extension of these measures was left to individual towns and local authorities. Leipzig, for instance, was the first town to institute a scheme under which paid doctors and nurses were appointed to watch over all illegitimate children. In Dresden, Chemnitz and Strassburg similar arrangements were afterwards made. There are still, however, a large number of places where nothing is done in this direction; for this reason social reformers put forward a plea that the law as to caring for illegitimate children should be made uniform and compulsory throughout the empire.

In most of the towns mentioned above, and in a number of others, the guardianship of illegitimate children is now exercised by a body composed partly of officials and partly of persons representing educational and philanthropic organisations interested in the welfare of children. Many of these local bodies have united to form a central union, known as the "Registry of Guardianship," which serves as an exchange for the experiences and opinions of the local bodies. A number of guardianship committees in Austria-Hungary and Switzerland are affiliated to this central body.

In some towns where infant welfare work is carried on, the official guardians now arrange with the infant welfare centres to supervise infants coming under their care. There is a scheme of this kind in Berlin.

One of the functions of the official guardians is to recover payments towards maintenance from the fathers of illegitimate children. As an illustration it may be mentioned that the Berlin official guardianship, which was established in 1912, had under its care at the end of its second year nearly 5,000 children, and had received on their behalf upwards of £50,000.

The steps by which official guardianship is gradually extended to all illegitimate children may be illustrated by the example of Mannheim. It will be seen that in Mannheim, as in other places, the period of this gradual extension coincided with the growth of the wider movement for promoting the welfare of all children.

In 1903 the municipal authority of Mannheim appointed a doctor to examine, and treat if need be, all foster children free of charge. Foster mothers were required to bring the children regularly to the doctor; children under one year not less often than once a month. It was also arranged that the women poor law visitors should visit all foster children under one year of age once a fortnight in the home of the foster parents.

In the following year all children maintained at the public expense were placed under legal official guardianship, whether maintained in institutions or boarded out.

In the course of time it became clear that the supervision of these particular classes of illegitimate children was not sufficient, since a large proportion escaped supervision because they remained either in the mother's family or in the charge of other relations without special payment. The municipal authority determined in January, 1913, to set up complete supervision over all illegitimate children. The provisions of the Order relating to medical and nursing care were at the same time extended to all such children.

Mannheim supports, in addition, an infants' home in which infants reared at the cost of the town are kept until they are old enough to be boarded out in private families.

(50) *Influence of the war on illegitimate children.*—On the outbreak of war the care of foster children was interfered with in many instances by the mobilisation of the doctors appointed to look after them.

Provision for illegitimate children generally became more difficult, because during the war no action could be taken against soldiers for the recovery of sums towards the maintenance of their children, and it was impossible to take legal action to establish paternity.

As the war went on, however, the various forms of guardianship over illegitimate children which had been instituted before the war appear to have been exercised with greater closeness and care than formerly, although there is still great variation in this matter between one town and another. A Charlottenburg writer notes with satisfaction that since the war a larger number of illegitimate children have remained under the care of their own mothers than previously, and that this is a great advantage to them, especially in the early months. He thinks that this is partly because unmarried mothers show more affection for their children in time of war than in time of peace; but economic influences may also have been at work, since the same writer attributes the decrease in the number of boarded-out children to the fact that the high cost of food leaves little or no profit for the foster parents out of the payments made by the State or by the mothers, while the mothers find it more economical to keep their children with them than to increase the payments.

Another reason for the improvement in the lot of illegitimate children is that many well-to-do persons have adopted children in war time who would not have done so in time of peace.

Reports from several towns state that the number of illegitimate children has been reduced by numerous "war marriages," the children then becoming legitimate.

In Breslau it was decided, early in 1917, to give assistance from municipal funds to unmarried mothers who wish to bring up their children themselves. Allowances will be given to the mother while learning a trade, and tools and implements supplied where needed. The assistance thus given will not be counted as poor relief.

(51) *Separation allowances for illegitimate children.*—Immediately after the passing of the law of 4th August, 1914, as to separation allowances, the Registry of Guardianship and several other philanthropic societies petitioned the Government to extend the allowances to the illegitimate children of soldiers, and on the 3rd September following it was announced that the Government had decided that the allowances should be extended to such children, provided the responsibility of the father for their maintenance had been legally established.

As, in consequence of the war, no legal cases could be dealt with or documentary evidence obtained, a large number of illegitimate children were at first deprived of the advantage of these provisions. The need for some more elastic arrangement was urged upon the Government, and in March, 1915, uniform regulations were made by all the Federal States according to which the claims of illegitimate children to allowances were to be granted on condition that the obligation of the father to maintain the child had been established, but without requiring strict legal formalities. It was sufficient for the father to have acknowledged paternity or to have contributed towards the child's maintenance.

(52) *Imperial maternity grants for the mothers of illegitimate children.*—The imperial maternity grants were not at first (in December, 1914) given to the mothers of the illegitimate children of soldiers, but by the amending order of April, 1915, the benefit of the grant was extended to unmarried mothers, provided proof was forthcoming that the father was serving in the army. A letter to the mother was to be considered sufficient evidence.

(53) *Mortality among illegitimate children during the war.*—The special measures taken on behalf of illegitimate children have had the effect, in some cases, of bringing about a greater relative improvement in the death-rate among illegitimate infants than among the legitimate. Leipzig, Chemnitz

and Strassburg may be mentioned as examples of this. Thus, in Leipzig, while the rate of infant mortality for legitimate children improved a little in 1915 as compared with 1914 the rate for illegitimate children was reduced by about one-third.

In the Düsseldorf Government District the mortality rate among illegitimate infants in 1915 was the lowest on record, viz., 217 per thousand, as compared with 255 in 1914 and 238 in 1913. It will be noticed that the rates are still high.

Some towns, on the other hand, report an increase in the death-rate among illegitimate children in 1915 as compared with 1914. In Cologne, for instance, the death-rate among illegitimate children was 222 per thousand in 1915 as compared with 202 in 1914. Cologne also reports a higher percentage of illegitimate births in 1915 than in 1914. In Aix-la-Chapelle the death-rate among illegitimate children increased from 202 in 1914 to 229 in 1915.

(f) THE WAR SPONSORSHIP MOVEMENT.

(54) *Institution and extension of scheme.*—In the early days of the war (October, 1914) a committee of the Red Cross instituted a new scheme for helping needy mothers and infants during the war. They called the scheme "War Sponsorship." A war sponsor became responsible for the support of a child, and, if necessary, of the child's mother. In some cases both mother and child were received into the sponsor's home, in others they were paid for, according to a prescribed scale of charges, in a suitable institution.

The scheme was started in Berlin and its suburbs, but it has since spread to many other towns. The movement has been taken up very generally in Saxony. In Dresden three hundred sponsors came forward almost at once. In Silesia more than 1,000 children were under the care of war sponsors at the close of the year 1915. A report on the working of the scheme in Mannheim for the year 1915 stated that sixty persons had become war sponsors, and that 119 families with about 300 children, 50 of whom were infants, were under their care. Both mothers and children had benefited as a result of the personal bonds thus established.

In some quarters the movement seems to have developed into a scheme for looking after the children throughout their school life, and funds have been collected and invested which will afterwards be used to apprentice them to various trades. Schemes of insurance with this object have also been started.

VII.—OTHER MEASURES ON BEHALF OF MOTHERS AND INFANTS.

(a) SUPPLY AND DISTRIBUTION OF MILK.

(55) *Scarcity of milk at beginning of the war.*—Difficulties with regard to the milk supply were encountered at an early stage of the war. Complaints as to scarcity became general, and many large towns adopted special measures for ensuring a supply of milk. The high price and scarcity naturally affected most seriously the infants and young children, nursing mothers, and the sick.

(56) *Imperial legislation.*—For a long time the Imperial Government were unwilling to intervene, but the inadequacy of local measures led to agitation in favour of some general regulation of the milk supplies. It was not until the autumn of 1915 that the Government took the matter in hand.

By a decree of the Federal Council of 4th November, 1915, the larger towns were required, and the smaller ones enabled, to control prices and to secure, by preferential measures, a proper supply of milk to nursing mothers, to

infants and young children, and to the sick. The actual quantities to be allowed to each of these classes were laid down in a further decree of 11th November, 1915 (Appendix II (1)).

No further direct measures for controlling the milk supply were taken by the Imperial Government until the 3rd October, 1916, when another decree was issued restricting to children, expectant mothers (during the last three months before confinement), nursing mothers, and the sick, the supply of full cream milk; all other persons were to receive skimmed milk only. The Imperial Office for Fats was empowered to fix the quantities to which these classes were to be entitled (Appendix II (2)).

It was provided that the milk was to be distributed by means of a card system or other similar municipal arrangement, and that the claim to the prescribed quantity of milk depended on the supply at disposal.

A new Milk Order, intended to secure more comprehensive seizure of supplies at the source, was issued by the Imperial Office for Fats on the 3rd November, 1917. Compulsory rationing of producers was provided for. The regulations as to preferential supplies for mothers and young children were not changed.

(57) *Local Measures : Supply of milk.*—A number of municipalities adopted active measures for the supply of milk before any imperial steps were taken. In many instances, however, little was done. More activity followed after the Imperial Government had been moved to deal with the matter. While the Federal Council could make the regulations, the task of carrying them out fell upon the local authorities, and the actual measures adopted depended on their resources and initiative.

The great difficulty with which municipal authorities had to contend as regards the milk supply was the scarcity caused by the dislocation of economic conditions. Added to this, producers prices were, it is alleged, increased to an unjustifiable extent. The fixing of maximum prices to prevent exorbitant charges was generally found to be futile, and only resulted in further scarcity.

In these circumstances, many towns found it advisable to provide other means of ensuring supplies. Several plans were adopted. Cows were bought or hired and kept in the town in municipal premises adapted for the purpose, or put out to pasture on meadows in the vicinity of the town, or "boarded out" with neighbouring farmers. In some towns grants towards the purchase of cows were made to private cowkeepers on condition that they delivered a certain quantity of milk to the town; and in others premiums were paid according to the quantity of milk supplied daily. Contracts for the supply of milk on various conditions were entered into by some towns. It is claimed that satisfactory results were obtained where municipal milk depôts, in which dealers co-operated, were established.

The industrial towns were the most progressive in making arrangements for the supply of milk, their greater difficulties no doubt calling forth greater effort. Some examples of the action taken are given in Appendix II (4).

(58) *Local Measures : Distribution of milk.*—It was generally recognised, even before any regulations were laid down by the Imperial Government, that infants and nursing mothers should have a prior claim on available supplies, and this was taken into account by most municipalities in devising plans for the distribution of milk.

The measures adopted differed in different towns, both before and after the imperial regulations. In two towns at least the distribution of milk has been taken over entirely by the municipality.

(59) *Distribution of milk through welfare centres.*—The provision of "milk kitchens" in connection with welfare centres appears to be common. A number existed even before the war; now few centres are without some arrangement by which milk can be supplied for artificially fed infants. In

some cases where the centre itself does not prepare the milk agreements are made with neighbouring dealers.

■ The milk is generally given out on medical authority. A charge is made to those who can pay, but a good deal of milk is distributed free. The cost of the milk distributed by the welfare centres without charge or below cost is generally defrayed out of municipal funds.

■ (60) *Control of special milk foods.*—By a Federal Order issued in June, 1917, the manufacture of all milk preparations was prohibited, except with the express permission of the Imperial Office for Fats. An exception was made as regards albumenised milk, butter milk, Plasmon, Larosan and Ramogen. These may be sold, however, only to officially licensed places—hospitals, clinics, welfare centres, etc. Local authorities may buy direct from the factories and themselves undertake the distribution to the above-mentioned institutions, or may allow them to arrange for a direct supply. These special foods can be obtained only in exchange for full cream milk tickets.

(b) SPECIAL ARRANGEMENTS FOR THE DISTRIBUTION OF FOOD.

(61) *Special methods of distribution.*—The shortage of food, often entailing as it did long periods of waiting in queues, threw great strain on expectant and nursing mothers. The injurious effect of this was realised by many municipal authorities at an early stage, and appears to have been largely avoided where the distribution was made on the basis of customers' lists (each customer nominating a retailer and obtaining supplies only through him). Elsewhere special measures had to be adopted.

The most general plan of making special provision for these women is by a system of "preference cards" which usually entitle the holder to be served before ordinary customers, so that she does not have to stand and wait among these for her turn. These preference cards are given out on application to the *Polizei* authorities in some towns or to the municipal food office in others. The *Polizei* officials are instructed to see that the holders, on production of such cards, are given the special treatment to which they are entitled.

(c) ADDITIONAL RATIONS OF FOOD.

(62) *Action of sickness societies.*—The central committee of the German District Sickness Societies presented a memorial to the War Food Bureau in the summer of 1916 stating that district sickness societies had observed that women who came to claim the imperial maternity grants were insufficiently nourished. The Committee asked that expectant and nursing mothers should receive an increased bread ration, equal in amount to that granted to heavy workers, and also a larger ration of fat.

Branch committees were at the same time advised by the central committee to approach the authorities of their respective districts with a view to obtaining additional rations of bread and fat for this class of members.

Local reports also drew attention to the needs of mothers. The district sickness insurance society of Remscheid, which has a welfare centre of its own, reported that breast-fed children, although not unhealthy, did not gain the normal weight, and in many cases even lost weight, because their mothers were insufficiently nourished. The society asked the municipal authorities to allow nursing mothers $\frac{1}{2}$ lb. of butter, at least 3 eggs and a generous amount of fat weekly, as well as $1\frac{3}{4}$ pints of milk a day, and for each artificially fed infant $1\frac{3}{4}$ pints of milk a day and $\frac{1}{2}$ lb. of rolled oats weekly.

(63) *Distribution of additional rations of food.*—As the difficulty of obtaining food increased, many local authorities adopted measures for giving to expectant and nursing mothers additional rations of certain kinds of food. As will be seen from the instances quoted in Appendix II (5), different arrangements were made in the various towns with regard to the kinds of food, the duration

of the allowances, and the manner of distribution. The rations provided for were generally of flour, semolina, groats, rice, rolled oats, macaroni, etc., and in some cases butter, fat, eggs and meat.

The length of time during which the additional allowances were made to expectant mothers corresponded in most cases to the period, three months, during which they were entitled to full cream milk under the Federal Order. It was longer in some towns, for example, four months in Breslau, Dortmund and Offenbach, five months in Berlin, Göttingen and Stettin, and seven months in Glauchau.

The additional allowances to nursing mothers were generally granted for two or three months after confinement, although in a few towns not so long. In Leipzig, Stettin and Glauchau they were continued during the whole period of breast-feeding; in Bautzen up to nine months; in Bonn and Brandenburg up to twelve months; and in Breslau up to two years.

It appears to be a common practice for the cards entitling mothers to buy special rations to be given out by the welfare centres.

During the latter half of 1916 complaint became general that mothers could not procure many articles of food suitable for infants and young children, even though they had cards entitling them to buy specified amounts. To meet this difficulty many municipal authorities arranged for certain kinds of food, necessary for young children, to be sold through some other agency than the ordinary dealer; in some cases special municipal depots were opened, often in connection with the infant welfare centre, in others the help of a philanthropic society was enlisted. An account is given in Appendix II (6) of the arrangements made in Munich in 1917 for distributing a large part of the rations for young children through the infant welfare centres.

(64) *Imperial action.*—Municipal measures for rationing infants and young children and securing suitable food for them were followed in due course by Government action. Mention has already been made of the Order issued by the Federal Council on the 3rd of October, 1916, which limited the use of full cream milk to mothers and infants and the sick. This Order was followed, on the next day, by an Order of the Imperial Office for Fats prescribing minimum food rations for infants (Appendix II (3)).

The Imperial Government decided in the spring of 1917 that it was desirable to bring about some degree of uniformity in the measures already adopted by local authorities for distributing food to expectant and nursing mothers, infants and young children. With this object, the War Food Bureau on the 25th of May, 1917, issued instructions, under the title of "Rules as to the Nourishment of Expectant Mothers, Infants and Children," to the various State Governments, with a request that the local authorities should be directed to see that they were properly carried out. The rules were drawn up by the Imperial Health Office, with the co-operation of experts and children's doctors.

It was recommended in these rules that women in the last three months of pregnancy should be allowed on request supplementary rations of milk and bread, if possible, or if not, of macaroni, patent foods and sugar.

The local authorities were requested to see that the rations of milk for mothers and infants were obtainable without difficulty or loss of time, and to give preference to the requirements of infants and young children in the distribution of rolled oats and wheaten whole meal. A certain quantity of finely milled wheat was allowed to local authorities in place of the so-called "children's flour," the preparation of which was discontinued. It was urged that the supplies of food specially allocated to infants should be readily available in appointed places (welfare centres, hospitals, dispensaries, etc.),

As it was not possible to provide additional supplies for mothers and infants, their special allowances were, if necessary, to be arranged for by a slight reduction in the ration for the other classes of the population.

The extent to which these provisions can be carried out depends, however, on the local conditions as to supplies ; and the imperial instructions are no guarantee that means will be available for their observance.

Reports from a number of large towns (Berlin, Nuremberg, Breslau, etc.) towards the end of 1917 stated that in consequence of the dearth of milk the daily quantities hitherto allowed to young children must be reduced ; rations of prepared foods were to be given instead, wherever possible.

VIII.—SUMMARY AND CONCLUSIONS.

(65) The war has brought about a great reduction in the number of births in Germany, the total number in 1916 being about 40 per cent. less than in 1913.

The infant death-rate rose to an abnormal height for a time after the outbreak of war, but there appears to have been a gradual return to the pre-war rate.

The maternity grants are stated to have had some influence in reducing the infant death-rate, but it is doubtful whether this has taken place except where they are administered as part of an organised scheme of infant welfare work. In towns and districts where the money is given out without any attempt to see that the mothers and infants are properly cared for, the grants appear to have had little or no effect on the infant death-rate.

The breast-feeding allowance is stated to have increased the number of breast-fed infants during the first three months of life ; but here again, the effect produced must be dependent upon the method of administration. Where the sickness insurance societies take steps, either through the infant welfare association or the midwives, to see that the mother does in fact breast-feed her infant, much good has been done. Where, on the other hand, no such action is taken, little or no improvement in this respect is seen.

It seems probable that the number of infants breast-fed beyond the first three months of life has also increased since the allowances were given, especially as some municipalities and voluntary infant welfare associations give further grants to mothers who continue breast-feeding beyond this period. The wish is generally expressed that the imperial allowances could be given for a longer time.

(66) Infant welfare work received a set-back when war broke out, but the importance of continuing it was soon realised and it has since received a great impetus.

A number of new infant welfare centres have been opened during the last two or three years, both in towns where a certain number already existed and in those where no such work had hitherto been attempted. Suitable schemes of infant welfare work for semi-rural and rural districts are being organised here and there. The demand for trained workers is so great that it is impossible for them all to receive the usual training.

While the number of infants to be cared for has been steadily diminishing, the activities of the centres have been added to in a variety of ways. The giving of certificates which entitle the mothers to claim the imperial breast-feeding allowance has thrown much additional work on many centres.

Ante-natal work has been arranged for in a number of cases, but it is admitted that much remains to be done in this direction.

The effect of war conditions on the well-being of children just above the age of infancy has induced a large number of centres to extend their care and supervision to children from 1 to 5 years of age.

The distribution of milk, generally in prepared portions, for artificially fed infants is undertaken by a very large number of centres. In many instances the milk is prepared at the centre.

It appears to be a growing practice for the cards entitling mothers to buy extra quantities of certain kinds of food for themselves and their young

children to be distributed by the welfare centres. In at least one town, Munich, a large part of the rations for children up to two years of age is actually sold at the centres (Appendix II (6)).*

All these additional functions have tended to add to the number of mothers coming to the centres, and to make them more regular in attendance.

Under the conditions of war the tendency has been for the expense of carrying on infant welfare to be thrown more and more upon public funds, with the control of the work passing largely into the hands of the local authorities.

There is a demand for an imperial law to make it the duty of all local authorities to undertake infant welfare work. The backward conditions in small towns and country districts are largely responsible for this demand.

In some towns the sickness insurance societies have themselves started various schemes of infant welfare work on somewhat different lines from those of the infant welfare associations; for example, by arranging for midwives to visit for an extended period, and by supplying home helps during confinement. In a few cases the societies have made extensive enquiries as to breast-feeding and its effect upon the health of infants.

Illegitimate children have received increased care and attention during the war, with beneficial results in many towns.

(67) While there has been development of infant welfare work on the modern lines of caring for the child in the home, the older method of caring for children in institutions has at the same time been extended. The demand for women's labour is so great that an ever-increasing number of women are being drawn into industrial work. While the mother toils by day or night her child must be cared for by others. Those who are concerned for the welfare of infants and young children believe that they will be better cared for by trained and supervised workers in crèches or infants' homes than in the homes of foster mothers, especially in view of the difficult food conditions. Endeavours are therefore being made to provide suitable institutions wherever they are needed, and to link them up with the general movement for infant welfare. But whether the measures taken will be adequate to counteract the effect of the industrial employment of women under the present conditions of night shifts, long hours and unusual strain, is a question which causes grave anxiety.

(68) The food conditions in Germany, difficult as they have been, have not been associated with excessive infant mortality, at least up to the end of 1916. In the towns, where the shortage of food has gradually become more pronounced and the difficulties of distribution have increased, the infant death-rate has tended to diminish. In the country the scarcity of food has been less keenly felt than in the towns, yet all the evidence goes to show that the infant death-rate has remained higher in the rural districts taken as a whole than in the towns; in some parts of the empire it has actually risen. It must be remembered, however, that the infant death-rate depends on a number of factors which may vary independently of each other.

(69) Special measures have been taken in a large number of towns to secure supplies of food for the poorer inhabitants, and especially for soldiers' wives. Although there is evidence that in some places expectant and nursing mothers have suffered from the lack of sufficient and suitable food, the measures taken by municipal authorities generally and the action taken by the Government have helped towards a fairer distribution of available supplies. Defects, however, are many and complaints bitter. The arrangements for giving preference to mothers and infants in distributing certain kinds of food have, nevertheless, prevented a good deal of hardship. The initiative in these matters is taken as a rule by a few progressive towns; when the measures thus introduced have proved useful in local application the Imperial Government follows with an Order requiring or permitting all towns to adopt them.

* The system has since been modified; see footnote to the Appendix.

APPENDIX I.

TABLE A.

Mean infant death-rates in the years 1901-05 in some European countries were as follows :—

(See the Seventy-fourth Annual Report of the Registrar-General, pp. 105-115.)

German Empire	199	per thousand live births.
Italy	168	" " "
Serbia... ..	149	" " "
Belgium	148	" " "
France	139	" " "
England and Wales... ..	138	" " "
Switzerland	134	" " "
Denmark	119	" " "
Sweden	91	" " "
Norway	81	" " "

TABLE B.

Total number of Live Births in all German towns having a population of 15,000 and over, during the years 1913 to 1916.

(Compiled from the official figures published monthly by the Imperial Health Office in the "Veröffentlichungen des Kaiserlichen Gesundheitsamts.")

Year.	Total mid-year population.	Total No. of Live Births.	Decrease as compared with		
			1913.	1914.	1915.
			Per cent.	Per cent.	Per cent.
1913	25,812,000	633,235	—	—	—
1914	26,424,000	621,453	1·8	—	—
1915	28,726,000	490,385	22·5	21·1	—
1916	27,015,000	375,825	40·6	39·5	23·3

TABLE C.

Infant Mortality Rates in large towns in Germany in the years 1904-1913.

(From "Bewegung der Bevölkerung" published by the Imperial Statistical Office.)

	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
Berlin	200	206	177	163	169	156	157	173	142	138
Hamburg	167	174	166	139	160	142	149	158	130	114
Leipzig	243	227	190	175	178	172	150	242	133	143
Cologne	227	215	222	191	193	173	154	234	152	156
Munich	229	228	196	204	192	192	166	176	134	139
Dresden	192	209	167	152	152	139	129	166	116	116
Essen	164	149	176	139	148	132	127	169	116	125
Frankfort	159	173	145	134	139	124	117	124	102	102
Düsseldorf	204	191	195	146	157	148	129	180	125	124
Stuttgart	185	204	194	157	175	148	144	150	133	128
Hanover	168	164	160	154	128	130	109	145	111	113
Duisburg	193	187	170	163	167	153	170	233	126	136
Bremen	170	178	160	146	143	120	126	135	120	107
Mannheim	231	217	196	189	177	189	166	185	151	139

TABLE D.

Infant Mortality in Prussia.

From the "Medizinalstatistische Nachrichten" issued by the Prussian Statistical Office, Second Series, 1910, p. 383.

Years.	Legitimate Infants.		Illegitimate Infants.	
	Urban Districts.	Rural Districts.	Urban Districts.	Rural Districts.
1876-1880 ...	211	183	403	312
1881-1885 ...	211	186	398	319
1886-1890 ...	210	187	395	332
1891-1895 ...	203	187	385	336
1896-1900 ...	195	185	374	336
1901-1905 ...	181	178	339	322
1906 ...	168	167	303	303

The table below is compiled from later series of the same publication. The figures are not given separately for legitimate and illegitimate children in the later years.

Year.	Whole State.	Urban Districts.	Rural Districts.
1907	168	166	170
1909	164	159	167
1911	188	187	188
1913	149	145	154
1914	164	160	167

TABLE E.

Infant Mortality in Bavaria.

From the "Handbuch der Medizinischen Statistik," by Dr. Friedrich Prinzing, 1906. The author states that his figures are derived from official sources.

Years.	Legitimate Infants.		Illegitimate Infants.	
	Urban Districts.	Rural Districts.	Urban Districts.	Rural Districts.
1876-1878 ...	294	286	376	392
1889-1892 ...	254	264	325	359
1893-1897 ...	247	251	317	356
1898-1902 ...	224	246	306	356

TABLE F.

Infant Mortality in Bavaria.

(From the "Zeitschrift des Statistischen Landesamts, Bayern.")

Towns or Parishes with a population of	1911.	1912.	1913.	Total population about
Over 100,000 inhabitants	197	149	159	1,210,000
Between 20,000 and 100,000 inhabitants	199	163	153	840,000
" 5,000 " 20,000 "	217	171	170	5,010,000
" 2,000 " 5,000 "	232	170	186	
Under 2,000 inhabitants	231	186	193	

TABLE G.
*Infant Mortality in Prussia, Saxony and Bavaria.**

	1911.	1913.	1914.	Population in 1910.
PRUSSIA.				
1st quarter	148	138	135	40,165,000
2nd quarter	142	141	128	
3rd quarter	312	171	143	
4th quarter	141	146	150	
Year	188	150	164	
SAXONY.				
1st quarter	166	163	152	4,807,000
2nd quarter	160	162	140	
3rd quarter	424	146	242	
4th quarter	158	147	157	
Year	228	157	173	
BAVARIA.				
1st quarter	185	179	184	6,887,000
2nd quarter	192	190	170	
3rd quarter	325	182	239	
4th quarter	180	177	179	
Year	223	182	193	

The figures show the high mortality in the third quarter of 1911 (due to high temperature and drought) and of 1914 (due largely to conditions arising from the outbreak of war).

TABLE H.

Infant Mortality in various large towns in the months of August and September, for the years 1911, 1913 and 1914.

The figures show the abnormal mortality of August and September of 1911, and, less so, of 1914.

Town.	Year.	August.	September.	Whole Year.
Berlin	1911	363	234	174
	1913	146	134	138
	1914	223	204	157
Hamburg	1911	290	235	158
	1913	118	121	115
	1914	158	164	126
Leipzig	1911	849	362	242
	1913	159	165	143
	1914	306	262	168
Cologne	1911	688	351	234
	1913	171	231	156
	1914	339	364	160
Essen	1911	484	264	169
	1913	138	165	125
	1914	255	211	137
Nuremberg	1911	503	374	203
	1913	139	144	162
	1914	235	230	165
Stuttgart	1911	463	250	150
	1913	141	112	132
	1914	162	149	132
Magdeburg	1911	676	312	232
	1913	164	178	162
	1914	382	295	194
Mannheim	1911	430	304	185
	1913	158	176	139
	1914	355	214	159

* From the "Medizinalstatistische Nachrichten" issued by the Prussian Statistical Office; the "Zeitschrift des Sächsischen Statistischen Landesamts,"; and the "Zeitschrift des Statistischen Landesamts, Bayern."

TABLE I.
Infant Mortality in the Rural Districts of Prussia.

	1911.	1913.	1914.
1st quarter	157	141	140
2nd quarter	145	144	131
3rd quarter	296	174	242
4th quarter	143	150	155
Year	188	154	167

TABLE K.
Infant Mortality in the twenty-six largest German towns in the years 1913 to 1916.
(Compiled from the returns published periodically by the Imperial Health Office.)

	1913.	1914.	1915.	1916.
PRUSSIA :—				
Berlin	138	156	141	128
Schöneberg	128	127	123	91
Breslau	172	185	179	170
Charlottenburg	123	140	134	123
Cologne	156	158	148	153
Danzig	170	195	192	126
Dortmund	142	136	125	128
Duisburg	136	168	143	140*
Düsseldorf	124	139	116	113
Essen	125	143	132	135
Frankfort	102	104	104	104
Hanover	113	123	112	103
Kiel	128	136	128	129
Königsberg	184	197	196	136
Magdeburg	162	198	195	169*
Neukölln... ..	143	156	138	111
Stettin	193	203	179	151
BAVARIA :—				
Munich	139	147	149	133
Nuremberg	162	165	164	145
SAXONY :—				
Chemnitz	161	208	165	153*
Dresden	116	122	108	103
Leipzig	143	168	132	119
WURTEMBERG :—				
Stuttgart	128	122	103	113
BADEN :—				
Mannheim	139	155	146	— †
TOWN STATES :—				
Bremen	107	117	108	119
Hamburg	114	126	111	117
Rate for 26 towns ...	139	153‡	140‡	130‡

* Returns for one month missing.

† Returns for three months missing.

‡ Figures published by the Imperial Health Office as the mean rates for the 26 towns.

TABLE L.
Infant Mortality in Bavaria.
 (From the "Zeitschrift des Statistischen Landesamts, Bayern.")

Towns or Parishes with a population of	Total population about	Infant death-rates in		Percentage of the total No. of infant deaths occurring in each group of towns or parishes in 1915.
		1914.	1915.	
Over 100,000 inhabitants (3 towns)	1,210,000	163	165	9.8
Between 20,000 and 100,000 inhabitants (21 towns) ...	840,000	165	165	7.8
Between 5,000 and 20,000 inhabitants ...	5,010,000	176	180	6.0
Between 2,000 and 5,000 inhabitants ...		196	213	10.9
Less than 2,000 inhabitants }		205	231	65.5
—	—	—	—	100.0

TABLE M.
 GERMAN EMPIRE.
Percentage of Illegitimate Births in years 1851-1912.
 (From the "Statistisches Jahrbuch für das Deutsche Reich," issued in 1914.)

Period or Year.	Percentage of Illegitimate Births.
1851-1860	11.5 per cent.
1861-1870	11.5 "
1871-1880	8.9 "
1881-1890	9.3 "
1891-1900	9.1 "
1901-1910	8.6 "
1901	8.6 "
1902	8.5 "
1903	8.3 "
1904	8.4 "
1905	8.5 "
1906	8.5 "
1907	8.7 "
1908	8.9 "
1909	9.0 "
1910	9.1 "
1911	9.2 "
1912	9.5 "

TABLE N.
 GERMAN EMPIRE.
Mortality of Legitimate and Illegitimate Infants in the years 1901-1913.
 (From the "Statistisches Jahrbuch für das Deutsche Reich," issued in 1914.)

Year.	Death-rate of legitimate infants.	Death-rate of illegitimate infants.	General infant death-rate.
1901	194	339	207
1902	173	293	183
1903	193	327	204
1904	186	314	196
1905	194	326	205
1906	175	294	185
1907	166	280	176
1908	168	285	178
1909	160	268	170
1910	152	257	162
1911	182	299	192
1912	139	232	147
1913	142	237	151

APPENDIX II.

(1) QUANTITIES OF MILK TO WHICH CERTAIN CLASSES OF PERSONS WERE ENTITLED UNDER THE FEDERAL ORDER OF THE 11TH OF NOVEMBER, 1915.

For infants up to the end of the second year, if they					
were not being breast fed	...	...	...	...	1 litre (about 1 $\frac{1}{4}$ pints) a day.
For nursing mothers	...	...	...	...	1 " a day.
For children over two years of age	...	...	...	...	$\frac{1}{2}$ " "
For sick persons	...	...	...	...	Up to 1 litre a day.

(2) QUANTITIES OF MILK PRESCRIBED BY THE IMPERIAL OFFICE FOR FATS UNDER THE DECREE OF 3RD OCTOBER, 1916.

For infants in the first and second years, if not breast fed	...	...	...	...	1 litre a day.
For nursing mothers, for each infant fed	...	...	...	...	1 " "
For expectant mothers in the last three months before confinement	...	...	...	...	$\frac{3}{4}$ " "
For children in the third and fourth years	...	...	...	...	$\frac{3}{4}$ " "
For children in the fifth and sixth years	...	...	...	...	$\frac{1}{2}$ " "

(3) RATIONS OF FOOD PRESCRIBED BY THE IMPERIAL OFFICE FOR FATS IN AN ORDER OF 4TH OCTOBER, 1916.

For healthy infants up to two years of age :—

- 30–50 grammes (about 1–1 $\frac{1}{4}$ oz.) of sugar daily ;
- 200 grammes (about 7 oz.) of wheaten flour, ordinary milling, weekly ;
- 500 grammes (about 17 $\frac{1}{2}$ oz.) of oatmeal monthly.

These allowances were primarily intended to be used mixed with milk for the preparation of infants' food. They were to be given whether the infant was artificially fed or not ; if the mother breast-fed her infant, she was to have the allowance of food for herself.

For delicate infants up to two years of age :—

Finer wheaten flour or special foods (that is, Plasmon, albumenised milk, butter milk, etc.) might be given on a medical certificate, which must be renewed monthly.

Where full food tickets were not issued for an infant the mother was to receive, wherever possible, a supplementary allowance of food.

Children above two years of age were provided for under the various Orders dealing with the rationing of food for the general population.

(4) EXAMPLES OF MUNICIPAL MEASURES TO ENSURE THE MILK SUPPLY, ESPECIALLY FOR MOTHERS AND CHILDREN.

Frankfort on the Main (popn. 470,000).—In March, 1917, the municipal authority voted a considerable sum of money for the purpose of setting up municipal dairy farms. The milk produced was to be reserved for infants and young children. Four large estates in rural districts were shortly afterwards leased. Besides having a good stock of cows in these municipal dairies, the town has a number "boarded-out" with farmers as a reserve stock, the cost of setting up accommodation for them being thus avoided. The municipal supply is said to be enough for all infants up to one year of age. In addition, the municipal authority gives grants, in money or otherwise, towards the establishment of dépôts for the collection of milk in rural districts.

Mannheim (236,000).—In order to improve the milk supply a limited company, controlled and financed by the municipality, was formed in 1915. A number of cows were purchased and a central dépôt established. By the end of 1916 the number of cows had reached 500, and the supply of milk had increased. Having regard to the difficulties, the position was claimed to be favourable on the whole, in spite of a deficit of about £2,000 in the accounts of the central dépôt for the year 1916. The deficit was attributed to the narrow margin of profit, fluctuation of business, and to the special expenses incurred in extending the delivery area.

Strassburg (193,000).—Strassburg was the first German town to undertake municipal control of the entire milk supply. The town had for several years before the war suffered from an insufficient and irregular supply of milk. The municipal authority had made several attempts to control the trade in the common interest, but it was only under pressure of war conditions (the supply fell to one-seventh of the usual amount in the autumn of 1914) that the urgent necessities of the town prevailed over the opposition to a municipal scheme. Towards the close of 1915 a sum of £50,000 was voted for the establishment of a central dépôt ; it was arranged that the greater part of this capital should always remain in the hands of the municipality, while the rest of the shares were given to the dairy owners in whole or part payment for the goodwill of their businesses. All milk brought into the town or produced within its limits is now delivered under contract to the agents of the municipal authority. The manufacture of milk products is also municipally controlled. To facilitate distribution the town is divided into districts, corresponding to the districts for bread tickets, in each of which a milk dépôt

is established; milk is sold on production of milk tickets. The amount of milk to which each family is entitled depends on the number and ages of the members. Children under two years of age receive four times as much as persons over fourteen, and children between two and fourteen twice as much. Expectant mothers receive during the last three months before confinement the same amount as children under two.

Dortmund (293,000) has now followed the example of Strassburg and municipalised the whole of its milk supply. Early in 1917 the municipal authority bought 400 cows and put them out to graze on estates in the vicinity of the town, and a small dairy was acquired, the milk thus produced being distributed to infants and sick persons. A limited company, controlled and financed by the municipal authority, was formed, and on the 1st September, 1917, a municipal order was issued requiring all milk (whether full cream, skimmed, condensed, dried, or sterilised) and cream, produced in or brought into the town, to be handed over to this company at its various depôts. All cow-keepers supplying the town are required to report monthly to the company the amount of milk produced on their premises, and any increase or decrease in their herds. The immediate result of this measure was to increase considerably the supply of full cream milk, as the conversion of milk into expensive preparations was stopped. Full cream milk is sold only to those persons who hold cards entitling them to buy it. Cards for skimmed milk also have been introduced. No milk is now delivered to customers' houses; each householder must fetch his supply from one of the 138 depôts which have been opened in various parts of the town. This arrangement is said to prevent any tampering with the milk. Specially prepared milk for infants is sold at 12 of the depôts.

The quantity of full cream milk supplied to the town in pre-war times was about 70,000 to 80,000 litres a day. In the summer of 1917 it had fallen to about 17,000 litres; since the municipalisation of the supply about 30,000 litres has been secured. The population of the town has increased during the war from 234,000 to 293,000.

Cologne (653,000).—The municipal authority spent large sums of money, even before the war, in the distribution of milk. The expenditure for this purpose amounted to more than £4,000 in 1914.

Milk was scarce in the town in the summer of 1915, and many families able to buy milk in ordinary times were glad to avail themselves of the municipal supply. As the number of women who went out to work increased a larger number of children were sent to crèches, etc., where the milk was supplied by the town, and those who had to cease breast-feeding their infants found the municipal milk a convenient substitute. In the summer of 1916 the municipal authority voted money for the payment of an allowance of 6s. a month, during the hot months, to needy nursing mothers who were not in receipt of the imperial maternity grant. The object of this money payment was to encourage women to breast-feed their infants and so to reduce the demand on the available supply of milk. Children of two and three years of age were entitled to $\frac{1}{2}$ litre (nearly 1 pint) of milk daily. In special cases an allowance of milk for an infant might be made even if the mother received the nursing allowance. This milk was given free to needy families, and the cost borne by the town.

(5) EXAMPLES OF DISTRIBUTION OF ADDITIONAL RATIONS OF FOOD TO MOTHERS AND INFANTS.

Munich.—The Medical Advisory Council of the Food Office in Munich decided to grant a supplementary bread ration to expectant and nursing mothers on receipt of an application accompanied by a medical certificate. The increased ration was not to exceed 2 lbs. 3 oz. for 14 days.

Leipzig.—By an Order of the municipal authority of Leipzig in April, 1917, expectant mothers, during the last three months before confinement, and nursing mothers, during the time the infant was breast-fed, were to receive an additional weekly allowance of $\frac{1}{4}$ lb. of flour. The flour is given on production of a ticket obtained from the card distribution bureau on medical recommendation. For the first four weeks after confinement a certificate from the midwife is sufficient. Needy persons can obtain a medical certificate at the infant welfare centre. Those who are not entitled to the imperial maternity grant receive a monthly packet of food materials up to the value of 3s.

Frankfort.—The municipal authority of Frankfort made arrangements for nursing mothers to purchase, on presentation of a registered birth certificate, packets of semolina, rolled oats, barley and other foods. An additional monthly allowance of 1 $\frac{1}{2}$ lbs. of semolina or rolled oats could be received for children up to two years of age, on production of the milk ticket. In both cases the distribution of these special rations was made from the Red Cross Provisions Department, and grants towards the cost were made by the associations for infant welfare.

Plauen.—Nursing allowances in money and in kind are given in Plauen (139,000) to needy mothers, provided that they were resident in the town at the time of the infant's birth. The allowances are given up to the twenty-fifth week after the confinement.

Fürth.—In February, 1917, the town council of Fürth (74,000) authorised the grant of an additional allowance of $\frac{1}{2}$ lb. bread a week to expectant mothers, in the later months of pregnancy, and to mothers during the period of breast-feeding, provided they are not already in receipt of a similar allowance under any other order. A certificate, which is good for two months, is required, either from a doctor or from the infant welfare centre, that the mother is breast-feeding her infant.

Glogau.—In Glogau (26,000) soup cards and additional bread cards are given to nursing mothers by the town council through the infant welfare centre.

(6) THE DISTRIBUTION OF RATIONS OF CERTAIN KINDS OF FOOD FOR YOUNG CHILDREN, THROUGH THE DISTRICT ASSOCIATION FOR THE CARE OF INFANTS AND YOUNG CHILDREN IN MUNICH.

In view of the difficulties encountered by mothers in obtaining food for young children, the welfare workers of the Munich District Association had, since the spring of 1915, been selling rolled oats, semolina, etc., to the mothers who came to their centres.

The regular and sufficient provision of food suitable for young children became gradually more difficult in Munich, and the need of distributing it in proper quantities according to the age of the children more urgent. The municipal food bureau therefore requested the district association to undertake the distribution, through its centres, of the principal articles of food required by young children in the town, and early in 1917 the district association agreed to do so.* Participation in the scheme was made compulsory for all inhabitants.

The articles which it was agreed to distribute were milk products, rolled oats, semolina, barley, sugar, flour, malted foods, eggs, rice, biscuits, groats, and fat.

The following scales of rations were laid down by the municipal authority :—

1. For children from birth up to three months :—
 Rolled oats,† 0·7 oz. daily or 1 lb. 5 oz. a month.
 Sugar, about 1·1 oz. daily or 2 lbs. 3·2 oz. a month.
2. For children from the beginning of the fourth to the end of the twelfth month :—
 Rolled oats or semolina, 1·4 oz. daily or 2 lbs. 12 oz. a month.
 Sugar, about 1·1 oz. daily or 2 lbs. 3·2 oz. a month.
 Flour, 0·3 oz. daily or 8·8 oz. a month.
3. For children over one year and under two years of age :—
 Rolled oats or semolina, 0·7 oz. daily or 1 lb. 1·5 oz. a month.
 Sugar, about 1·1 oz. daily or 2 lbs. 3·2 oz. a month.
 Flour, eggs, barley, groats and fat, the quantities allowed by the bread card for children of that age.

Additional premises were taken close to each of the fifteen welfare centres, and a number of voluntary workers enrolled. The extra expenses incurred by the district association in carrying out this work were defrayed by the food bureau.

There were great difficulties to overcome :—irregular and not always prompt delivery of goods from the food bureau ; lack of staff and of means of transport ; the complicated book-keeping required ; the want of understanding and the suspicious attitude of many circles of the people towards any new institution ; and, perhaps the greatest difficulty of all, the actual shortage of food.

On the other hand, the arrangement had considerable advantages. The provision of sufficient nourishing food for all children under two years of age was guaranteed if supplies were sufficient, and the distribution according to the age of the children tended to economy. The keeping of a careful index of the children has almost entirely prevented overlapping. The care work of the centres has been much extended and developed. By means of the customers' lists all children under two years of age are registered in the card index of the district association, and this register has proved valuable. The association now receives notifications of births, deaths, arrivals in the town and removals from it much earlier than they were previously received from official sources.

The number of children to be supplied varies from 11,000 to 12,000.

* After about eight months' trial of this plan, the actual distribution of the food was handed over to certain retailers selected by the food bureau, and supervised by the district association. No food can be purchased for a child under two years of age until the card has been stamped at the welfare centre.

† Rolled oats are generally used in Munich for thickening milk for infants under three months old, and for making broth for older children.

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